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ABSTRACT

Revised to be in accordance with the customs, traditions, beliefs, and practices of the Muslim Filipinos, these units of study for use in health education courses will help secondary-level Filipino students understand world population problems and develop the necessary skills, attitudes, and values that will lead them to make rational decisions about population matters, particularly about family size. The units are organized topically by grade level: Understanding the Sex Drive, first year of high school; Mortality Transition, second year of high school; Fecundity, Fertility, and Sterility, third year of high school; Family Planning, fourth year of high school. Students are involved in many different kinds of activities, e.g., students analyze and discuss case studies, participate in class discussions, play games, interpret tables, and construct graphs. Unit information provided for each grade level includes theme, concepts, suggested time allotment, unit overview, and an outline of objectives and content. Each unit is comprised of several lessons that include the following information: objectives, content, teaching procedure, learning activities, and a test. Student materials are included in the lessons. (RM)

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TEACHER'S GUIDE
IN
POPULATION EDUCATION

For

HEALTH EDUCATION

First Year - Fourth Year
SECONDARY LEVEL
(Revised for Muslim Filipinos)

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POPULATION EDUCATION PROGRAM
Ministry of Education and Culture

Manila
1981

PREFACE

The population of the Philippines continues to grow at a high rate and the resulting unfavorable economic, social and health consequences on the life of the people have prompted several government agencies to initiate measures to help curb it. One such agency is the Ministry of Education and Culture.

As early as 1970, the Department of Education and Culture as the Ministry was known then, has been cognizant of the fact that the school can be a potent force which can be utilized in the resolution of the country's population problem. Since the establishment of the Population Education Program (PEP) in 1972 with financial assistance from the United Nations Fund for Population Activities, population education, which is a relatively new field of study, has been introduced in the curricula of the elementary, secondary and tertiary schools of the formal school system. With this innovation, it is envisioned that the Filipino youth will be able to acquire knowledge and understanding of the total population situation of the country and the world as well as develop necessary skills, attitudes and values that will lead them to make rational decisions and actions on population matters, particularly, on family size when the time comes. This is a long-term measure and its impact cannot be felt immediately. Yet upon it depends a lot hopefully, the realization of the country's socio-economic goals and the fulfillment of human aspirations towards a better quality of life.

Since the time of its launching, the Population Education Program has been pursuing three major activities in the comprehensive implementation of population education, namely: research and evaluation; curriculum development; and training of teachers and prospective teachers. In curriculum development, the PEP has already prepared, among other materials, secondary teacher's guides in population education for integration in Social Studies, Health, Home Economics, Science and Mathematics. Since these guides were prepared for general adoption and by curriculum writers who were Christian and urban-based, it was felt that there was a need to revise these materials in accordance with regional/subcultural needs and conditions if they are to be made acceptable to the regional end-users and more relevant to their needs.

In a curriculum development workshop for Muslim Filipinos on the secondary level held at the La Salette Seminary in Silang, Cavite from April 24 to May 19, 1978, selected secondary Muslim teachers and administrators from Regions IX and XII revised the secondary teacher's guides in population education to make them indigenous to the customs, traditions, beliefs and practices of the Muslim Filipinos. Herewith is the hope that the product of this undertaking will be welcomed by the Muslim end-users for the content of these materials is in accord with their culture and religion. These instructional materials were tried out in selected high schools in Regions IX and XII by the participants themselves and/or other selected teachers during the first semester of school year 1978-1979 to test their effectiveness, suitability and acceptability. Feedback from this tryout was consequently used as basis for the further refinement and revision of the guides before they were put into final print.

It is suggested that the teachers study these guides very thoroughly by reading through the overview, lessons and appendices in order that they will have a full grasp of what to teach and what to prepare before the actual teaching and where in the regular guides of the five subject areas they are going to integrate the exercises, lessons or sub-units in population education. By supplementing the study of the guides with additional readings from the Background Information for Teachers (BIT) for a more in-depth knowledge of the content of population education, it is expected that the teachers will be able to teach population education more efficiently and effectively.

JUAN L. MANUEL
Minister of Education and Culture
Project Director, PEP

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The revision of the PEP Secondary Population Education Teacher's Guides, integrated in the above-mentioned subjects was intended for the purpose of making them more relevant and responsive to the local needs, conditions, and culture in the Muslim areas. Such revision was made in a curriculum development workshop in population education for Muslim Filipinos, secondary level, which was held at the La Salette Seminary in Silang, Cavite from April 24 to May 19, 1978.

In the preparation of the revised secondary population education curriculum materials, the cooperation and assistance of a number of teachers, school officials, agencies, and institutions had been solicited.

The difficult tasks of revising the secondary teacher's guides were painstakingly and ably done by selected secondary teachers and school officials from the Muslim areas of Regions IX and XII.

Special credit goes to Mr. Faustino S. Miranda, Secondary Assistant Principal III, Dayang-Dayang Hadji Piandao Memorial High School, Jolo, Sulu; Mr. Tambas A. Cader, OIC, MSU-Saguiaran High School, Saguiaran, Lanao del Sur; Mr. Melecio S. Rojas, Secondary School Teacher, Cotabato National High School, Cotabato City; and Miss Amina D. Domato, Secondary School Teacher, Malabang National High School, Malabang, Lanao del Sur, for their efforts in revising the secondary teacher's guide in population education for Social Studies; to Mrs. Claridela N. Lomodag, Principal, MSU-Tugaya Community High School, Tugaya, Lanao del Sur; Miss Hadja Badria H. Jajurie, Guidance Coordinator, Dayang-Dayang Hadji Piandao Memorial High School, Jolo, Sulu; and Messrs. Mamualas M. Alon and Rudy K. Balhaman, Secondary School Teachers, Cotabato National High School, Cotabato City, for their efforts in revising the secondary teacher's guide in population education for Health; to Miss Loretta C. Andoy, Principal, MSU Balindong Community High School, Lanao del Sur; Mrs. Maimona O Karim, Secondary Classroom Teacher, Tawi-Tawi Pilot Opportunity School of Fisheries, Bongao, Tawi-Tawi; and Miss Bayanan A. Acbar, Secondary

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The delicate task of curriculum revision was facilitated with the invaluble assistance, guidance, and encouragement provided individually and collectively by the Curriculum Writer-Consultants. For the important work of propelling the different working groups to accomplish the job on time, grateful acknowledgment is extended to the Subject Consultants comprising of Miss Lourdes A. Arellano, Social Studies; Miss Herminia C. Tualla, Health; Dr. Estela Ll. Garcia, Science; Mrs. Patrocinio P. Cera, Home Economics; Miss Catalina Lotho, Mathematics; and Mr. Simeon H. Siongco, Evaluation.

For the highly informative lectures of selected resource speakers, special mention is made of the expertise availed of Miss Alice V. Pato, Educational Researcher II, PEP-MEC; Mr. Pedro V. Lorenzo, OIC, Program Development Division, POPCOM, Manila; Dr. Cesar Adib Majul, Dean Institute of Islamic Studies, PCAS, U.P.S.; Dr. Juanito A. Bruno, CESO III, Assistant Regional Director, Region IX, Zamboanga City; Atty. Nunggo E. Pahm, CESO III, MEC Regional Director, Region XII, Cotabato City; and Dr. Abdullah T. Madale, Vice President, External Studies, MSU, Marawi City.

Gratitude and appreciation is heartily expressed for the untiring efforts and diligence of dependable PEP personnel composed of Mrs. Iluminada R. Santos, researcher-librarian; Miss Jocelyn E. Bacay, Mesdames Carmelita G. Bautista and Flora A. Valmonte, clerk-typists; Miss Minverva Q. Favila and Mr. Aquilino R. Corpuz, artist-illustrators; and Mr. Oscar A. Flores, A-V and mimeo operator, who were responsible for the provision of resource materials, illustration preparation, and material production.

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Remedios M. Cayari
REMEDIOS M. CAYARI
Executive Officer

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A POPULATION EDUCATION UNIT IN HEALTH EDUCATION

FIRST YEAR - UNDERSTANDING THE SEX DRIVE

Suggested Time Allotment: 4-6 class periods

OVERVIEW

Adolescence is a period of growth and maturation that is marked by tremendous physical and emotional changes. During this period, boys and girls mature into young men and women. One of the change that young people experience is a burgeoning sex drive manifested in an attraction toward the opposite sex. Adolescents need to learn about this change in order to adjust to it and to be able to meet new social responsibilities.

This unit aims to develop understanding and appreciation of the sex drive as a natural part of growing up. The rationale for this is that this understanding is essential in the development of wholesome sex attitude and behavior.

Prior to this unit the students should have studied pubertal changes in the unit on Growth and Development. The present is a detailed study of one of the pubertal changes they should have learned in the aforementioned unit. We live in a society which has an ambivalent attitude toward sex. Sex is not as yet discussed openly and there are still many adults, including teachers, who are not comfortable in discussing sex and sex-related matters. Yet, we see all around us sex in the movies, in advertisements, in literary works, and even in news reports. In the light of all these, young people need to develop wholesome attitudes toward sex and a viable moral standard with respect to sexual behavior.

Since the high-school years should provide maximum opportunities for adolescents to develop skills for independent thinking and action, the lessons in this unit utilize such instructional procedures as buzz sessions, confrontation, and class discussions. Buzzing is an effective technique for increasing individual discussions. Sometimes class members are unable, unwilling, or are shy to express themselves in large groups. Samll groups stimulate individual thinking and provide a setting where ideas can be discussed freely without embarrassment. Confrontation is employed whan the children are confronted with differences of opinion, or inconsistencies in their own beliefs and/or practices and then led to discuss these differences or inconsistencies observed or pointed out. Class discussions, using contrived situations, are utilized in many instances in the lessons of the unit. The teacher directs questions to the students and then involves them in an interchange of ideas among themselves rather than with the teacher.

Time allotment for this unit is provided for in Unit IV, Health Education, pp. 130-133 of YDT Guide. It is suggested that the teacher arrange his schedule so that the unit is taught continuously. This will be most beneficial to the students as discussions need not be broken. Some situations have been added to fit the needs of the Muslim student. The appendix has been increased to include beliefs and practices of Regions IX and XII related to Human Sexuality. Vocabulary words carry translations for specific Muslim groups, i.e., Maguindanao, Maranao, Samal, Tausog and Yakan.

A suggested evaluation measure is provided at the end of the unit.

I. OBJECTIVES

A. General

Develop understanding and appreciation of the sex drive as a natural aspect of growing up.

B. Specific

1. Describe some manifestations of the sex drive in the adolescent.
2. Explain the importance of controlling and guiding the sex drive.
3. Explain the various factors that influence the development of sex attitudes and behavior.
4. Realize the importance of wholesome sex attitudes and behavior.
5. Accept that the sex drive should be controlled and guided if it is to become a positive force in one's life.
6. Evaluate issues related to the sex drive.

II. CONTENT

A. In terms of a concept

An understanding of the sex drive is essential in the development of wholesome sex attitudes and behavior.

B. In terms of related ideas

1. The sex drive is a natural and normal aspect of growing up.
2. The sex drive causes changes in feelings, including tensions among adolescents.
3. Various factors influence the development of sex attitudes and behavior.

4. The individual's sexual behavior reflects his moral and ethical values.

C. In terms of topics

1. Manifestations of the Sex Drive

a. attraction towards the opposite sex
b. having "crushes"
c. dating
d. going steady
e. etc.

2. Factors that Influence the Development of Sex Attitudes and Behavior

a. family
b. church/masjid
c. school/madrasa
d. peer group
e. cultural patterns of society
f. the individual

3. Importance of Wholesome Sex Attitudes and Behavior

4. Establishment of Sex Standards

a. standards of right and wrong
b. a viable moral code/Shari-a

III. SUGGESTED ACTIVITIES

Lesson 1
(2 class periods)

A. Specific Objectives

1. Discuss the manifestations of the sex drive in terms of feelings and behavior.

2. Identify and discuss some emotional problems related to the sex drive.

3. Accept these feelings as part of growing up.

B. Subject Matter

1. Understanding the Sex Drive

2. Manifestations of the Sex Drive

a. attraction to the opposite sex
b. having "crushes"
c. dating
d. going steady
e. etc.

C. References

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Lerrigo, Marian O., and Southard, Helen. Fact Aren't Enough. Chicago: American Medical Association, 1962.

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Appendix A, "The Sex Drive", p. 17.

Appendix B, "Human Sexuality", p. 19.

D. Suggested Procedure

Opener

Write the term "sex drive" on the chalkboard. Ask students to express their reactions to the term. Encourage them to express their ideas about the term. Write these ideas on the chalkboard.

Development

Have the students read the following situations. Where facilities are available, have copies of these distributed to the students prior to this lesson. The teacher may also write these situations on the chalkboard or on newsprint. Follow this up with a discussion using the guide questions suggested after each situation.

Situation No. 1

This letter appeared in the "Dear Fatima" column of a local weekly magazine.

Q. I have a big problem which has kept me from concentrating on my studies. It's about my classmate who's very shy. He doesn't talk to girls, except to those who talk to him first. As days pass, I find my infatuation for him growing. I sometimes think that it is love that I feel. Whenever we are in the classroom, I often look at him, and I am usually surprised to find him looking at me, too. There are many nights when I can't sleep just thinking about him. I always call him up for a chat. He's very nice, and seems very interested in talking with me over the phone. And yet, when we are in class and I approach him to ask him about something, he is not as nice, and his answers are short. My best friend keeps telling me to stop calling him up because he will think that I am chasing him. She also said that I should leave it up to him to make the first move in communicating with me. But I just can't follow her advice because I am really crazy about him. And since he's too shy to make the first move, I should be the one to do it, don't you think? Pleace give me your advice.

Guide questions for discussion:

1. What apparently is the problem of the girl who wrote this letter?
2. What feelings are expressed by the writer in her letter?
3. Are her feelings natural? Why do you think so?
4. What term do we give to this intense feeling of attraction toward the opposite sex?
5. Have you experienced this or have you heard of boys and girls who are going or have gone through this experience?
6. If you were in the same situation, what would you have done?

Situation No. 2

Haridja and Ayesha have been classmates since the elementary grades. They have always been together, going to and from the school, at lunch and during snack times. Both are enrolled in the same vocational subjects. One Friday afternoon, Mohammad who studies in the same school wanted to walk home with Ayesha. She asked Haridja to come with them, but Haridha refused. She went ahead to hide her hurt. At home, she cried to her mother saying, "Ayesha does not want to be my friend any more. She walked home with Mohammad."

Haridja's mother explained to her that in order to keep friends, she should let her friends have other friends. Her mother made her understand that it is natural for a girl in her teens to begin to get interested in the opposite sex. In another year, Haridja found this out to be true.

Guide questions for discussion:

1. Do you know of a group of friends who broke up their friendship because some of the members became interested in the other sex?
2. If you belong to such a group, and are starting to be interested in the opposite sex, how will you deal with your friends who do not feel the same way as you do?
3. If you are not yet interested in the opposite sex, how will you behave toward your friends who are starting to be interested in members of the opposite sex? Should you break up your friendship with them? Why?

Situation No. 3

A group of boys are resting in the shade of a tree in the schoolground. They have just sweated out one game of basketball. Yusop, the prankster, teases Usman as he spots Halima from a distance. Usman blushes and returns the teasing, this time directing it to Omar, who, caught unaware, stands up and angrily throws the ball at Usman. Ayub pacifies Omar. He tells them that there is really nothing to be mad about since all of them have "secret loves."

Guide questions for discussion:

1. Was Omar right in getting angry with Usman?
2. Have you ever been teased abuut being secretly in love with somebody? How did you feel?
3. Was Ayub right in saying that there is really nothing to be mad about as all of them have "secret loves"?

Situation No. 4

Mariam is in high spirits again. She hums happily as she walks to the next class. She will be seeing her favorite Math teacher. How she admires his low-pitched and well-modulated voice, his neat appearance from head to foot, and his towering 5'9" stature! Her mother once or twice scolded her for coming home late from school. Actually, these were the times she waited for her favorite Math teacher to be able to talk to him.

Guides questions for discussion:

1. What can you say about Mariam's behavior? Is she in love or is she just admiring her teacher?

2. Have you ever experienced the same feeling? Have you heard of others having such an experience?

3. Is this experience natural for young people?

4. What may be some reasons for Mariam's attraction to her Math teacher?

5. What do you call this attraction to or admiration for an older person?

Situation No. 5

Salih remembers the second or third time he had a "wet dream." He dreamt about a love scene in a movie. The big boys at school said that he can have another of those emissions by fondling the genitals. He tried doing this last night. While he found the experience very pleasurable as it relieved him of tension in the lower abdomen, however, he felt guilty and embarrassed.

Guide questions for discussion:

1. Why did Salih have feelings of guilt?

2. What is the term used to refer to self-stimulation?

3. What do you say about Salih's action? Do you approve of it? Why?

Situation No. 6

Among Muslims, young boys and girls don't mix together. They leave the house only for the Muslim school (Madrasa) or the church (Masjid.)

Abdul and Amina are both adolescents who go to the same school in Barangay Parang. Both have a "crush" on each other. Both wish to know each other better.

Guide questions for discussion:

1. How can Abdul and Amina know each other better?

2. In your culture, how do young people meet and make friends?

3. Have you had the same experience as Abdul and Amina? What did you do? Why?

After the class discussion on the various situations, proceed to a summary discussion by groups. Divide the class into 4 or 5 groups. Lead the groups to discuss the following:

1. Define or explain the term sex drive.

2. From the situations discussed, what are the manifestations of the sex drive? What other manifestations of the sex drive have you observed?

3. Will all boys and girls develop or have sex drives?

4. What emotional problems are related to the sex drive? Suggest ways of solving these problems.

After the buzz sessions, have each group report on the results of its discussion.

Summary of ideas

1. Sex drive is an impulse related to sex. It is a biological instinct that is necessary for race preservation.

2. The sex drive is manifested by the following:

   a. attraction toward the opposite sex
   b. having "crushes"
   c. hero-worship
   d. going steady
   e. dating
   f. etc.

3. Some emotional problems related to the sex drive are:

   a. breaking up of friendships due to a widening of the circle of friends which include members of the opposite sex
   b. guilt feelings arising from masturbation
   c. teasing
   d. inability to concentrate on anything for any great length of time
   e. daydreaming
   f. etc.

Lesson 2
(1-2 class periods)

A. Specific Objectives

1. Discuss the various factors that influence the development of sex attitudes.
2. Cite the possible effects of uncontrolled and unchecked sexual impulses.
3. Explain the importance of controlling and guiding the sex drive.
4. Exchange opinions and views with other class members on topics or issues regarding the sex drive.
5. Accept that the sex drive should be controlled and guided if it is to become a positive force in one's life.
6. Accept criticism, modification, or improvement of one's ideas in the course of class or group discussions on sex attitudes and behavior.

B. Subject Matter

Factors that Influence the Development of Sex Attitudes
Importance of Wholesome Attitudes

C. Suggested Procedure

Opener

You will recall that one of the characteristics of adolescent boys and girls mentioned in our previous dicussion is their attraction towards the opposite sex. Some of you may be going through this experience right now. Teenage boys and girls may sooner or later experience other types of sex behavior aside from attraction to the opposite sex. Boys may be having "wet dreams" and erections. Boys and girls may have the desire to fondle their genitals or to masturbate. They may also have a desire for kissing and petting. These desires are all part of the sex drives or urges that boys and girls go through starting at puberty. What do you understand by masturbation? Let us recall the situation taken up on this.

What do you understand by necking? Petting? Wet dreams? Erections?

What do you think or feel about these forms of sex behavior? Are these normal? Are these-something "dirty" or to be ashamed of? Why?

Development

Encourage the class to give their views and problems regarding the sex drive. If they are shy to express their views or talk about their problems openly, tell them to write these on slips of paper without their names. These slips of paper should be collected and read in the class. Have the students react on the views or problems aired.

> Try recalling your experiences. Who or what influenced you in your attitudes or views regarding the sex drives?

Many young children realize that the home, the church, the laws of Islam, their peers, and society exert major influences in the development of sex attitudes.

> What does the home or your family think about "wet dreams," masturbation, necking, and petting? What is the stand or view of the church (Catholic, Protestant, Islam, etc.) regarding these types of sexual behavior? See Appendix C for a discussion on this. What do your friends or preers say about these? What about society in general? Do the home, church, peers, and society have the same or conflicting views about these sex drives? What do you think of these conflicting views or differences of opinions?

It is important that the students be confronted with conflicting views or differences of opinions and then led to discuss them so that they will learn to think and act critically. An example of conflicting views is the double standard of sexual behavior for men and women. The home or society is of the opinion that it is all right for boys to have as many girl friends as they can have but it is unthinkable for girls to behave such. Ask the students what they think of this inconsistency.

Instead of the foregoing discussion on the views of the home, church, peers, and society, an alternate activity that may be undertaken in the class is a forum discussion, participated in by a parent to represent the views of the home; a community leader, the barangay captain, or the president of a civic organization to represent the views of society in general; a priest, minister, or imam or the three of them or their representatives to represent the vies of different religions; and a student leader to offer several points of view on the matter of sexual behavior. These invited speakers should be informed in advance of what they are supposed to discuss. A committee of students should be formed to invite these people. Aside from the speakers, there should also be a moderator who may be one representing the community. He may be the classroom teacher or a class leader.

The forum speakers and the moderator sit in front of the audience or class. The leader introduces the topic and the speakers. When presenting his side of the topic for class consideration, the speaker stands in frontof the class. There is no questinning or debating among the speakers themselves as in the case of a panel discussion. Instead, the time is given over to the class to direct the questions to the different speakers after all of them have finished their turns and express personal opinions about the issue.

At the end of the open forum, the moderator sees to it that a summary of the pertinent remarks by the forum speakers and the class is given. He may either give the summary himself, lead the speakers into giving the summary; or, he may arrange for a group from the class to make the summary.

After the speakers have left, ask the class for conflicting views, or differences of opinions, expressed by the different speakers. Ask the students what they think about these inconsistencies.

> You have expressed your views and feelings regarding the sex drives. We have discussed the views of the home, peers, church, and community regarding the different types of sex drives. Sex drives or urges are normal and healthy. They are as common and as natural as eating and sleeping, as being born and dying. The intensity or strength of the sex drives varies considerably from individual to individual and from age to age. There is nothing "wrong" or "dirty" about the sex drives, however, they should be controlled and guided. Why should the sex drives be controlled and guides?

The students might express the views that if the sex urges will be allowed unchecked, they might result in the following consequences:

1. Mental anxiety or conflict
2. Loss of self-respect
3. Loss of social acceptance
4. Early and forced marriages
5. Venereal diseases
6. Etc.

Ask the children about the effects of mental anxiety and loss of self-respect on one's physical and mental health. Ask them further about the possible effects of early and forced marriages and venereal diseases on one's physical and mental health.

Make the students realize that as adolescents they might feel quite capable of expressing physical love, but emotionally and psychologically, they still lack the long preperation that is needed to assume or accept the responsibility and consequences of the relationships they have to undertake with the opposite sex.

Lesson 3
(1-2 class periods)

A. Specific Objectives

1. Distinguish the difference between responsible or acceptable and irresponsible or unaaceptable sex behavior.
2. Explain what is meant by a viable moral code and its relevance to sex attitudes and behavior.
3. Formulate a code of sex attitudes and behavior which will be in conformity with acceptable standards of conduct in the community where you live.
4. Develop and practice wholesome attitudes and behavior towards sex.
5. Analyze the possible effects of wholesome sex attitudes and behavior.

B. Content

A Viable Moral Code and Shari-a (Holy Law of Islam)

C. Suggested Procedure

Opener

Have students play this word game.

Have 5 columns on the chalkboard labelled as follows:

1. Appropriate for children
2. Appropriate for teenagers
3. Sometimes appropriate for teenagers
4. Appropriate for adults
5. Never appropriate

Have these phrases written on small pieces of paper, then roll and place them in a box or in a jar.

1. kisses mother at home
2. kisses father at home
3. kisses father in public
4. kisses mother in public
5. cries if hurt

17. wishes to have friends of the opposite sex
18. flirts with the opposite sex
19. argues about points he does not agree with

6. does not cry in public
7. holds hands with the opposite sex in public
8. walks down the street with arm around partner (boyfriend/girlfriend)
9. hits back if hit
10. joins group in stoning the school windows
11. talks freely with opposite sex
12. dresses to attract opposite sex
13. dates with the opposite sex
14. obeys parents
15. engages in petting
16. untidy appearance
20. competes to win
21. plays truant in school
22. talks against friends behind their back
23. smokes
24. kisses date in a movie house
25. dates different partners
26. masturbates or fondless one's genitals
27. gambles in public places
28. dances the modern dance
29. bathes in the nude
30. wears a swimming suit
31. wears clothes that belong to the opposite sex
32. drinks heavy drinks

Ask students to write each phrase under the column where it belongs. Have the students examine the list they have made. Ask them if they all agree, more or less, with the list. If they list most of the phrases under the sometimes category, this indicates that they are in the transition stage from childhood to adolescence and reflects the kind of values they have or seem to favor. They are not yet sure of the code of behavior they want to follow. The result of this listing, although limited, points out the aspects of the code that need emphasis.

Development

The teacher asks the class this question.

What is right and what is wrong?

Provide for a free-wheeling discussion. Then present these situations for the reaction of the class.

1. You were finally admitted to a gang which you have wanted to join for a long time. As days pass, you begin to disagree with some of the practices of the gang, like cutting classes when the lesson is not interesting or smoking marijuana. As a member, you are supposed to do as the rest do but you have been trained in self-discipline by your parents.

What is the conflict in this situation?

What are the alternatives? Between these alternatives, is there a better choice?

What is the right thing to do?

2. Faisal was invited by his friends to a jam session. He did not tell his mother about it because he knew his mother wouldn't allow him to attend jam sessions on school days. He cut this afternoon class to attend the jam session. He reached home much later than usual. When asked by his mother, Faisal said that he came late because the bus broke down.

Did Faisal do right? Why or why not? What would you have done if you were in his place?

3. One Friday afternoon, Rose and her best friend, Rory, went foursome with their classmates, Andy and Tony, to see a movie. They beat their Physical Education classes. When they were leaving the movie house, they met Gloria, Rose's older sister who is in senior high, with her boy friend. Rose felt uneasy and scared.

What are the conflicts in the situation? What are the alternatives for Rose? If you were Rose, what would you do? Why?

4. Muslims are obliged to attend the Wajib or Friday prayers. They are forbidden to watch pornography (Haram).

Faisal and Abdul were on their way to the Wajib for the Friday Sermon (Khutbah) when they met some classmates who invited them to see a pornographic movie.

What is the conflict in this situation?

What are the alternatives?

If you were Abdul or Faisal, what would you do? Why?

Teacher asks:

What is right and what is wrong? What are the possible consequences of right and wrong decisions?

The students may give answers similar to the following:

Right actions, decisions, and attitudes produce

1. increased trust among people.
2. greater integrity in relationships.
3. dissolution of barriers separating people.
4. co-operation.
5. enhanced self-respect.
6. an appreciation of personal worth.

Wrong actions, decisions, and attitudes produce -

1. mistrust of people.
2. disloyalty in relationships.
3. conflict between persons and groups.
4. resistance and uncooperative attitudes.
5. loss of self-respect
6. cheating others.

Every person is subject to the basic rules of moral conduct expected by society. Conflicts arise when one's values and experiences differ from the expectations of society. A person can help resolve conflicts by using inner direction in making decisions on the morality or immorality of his sex behavior. Our sex behavior is judged moral or immoral according to the cultural values of the people where we actually are, the place of geographical location in which the behavior is shown, and the time or occasion it is displayed. Any departure from the accepted values of our culture or group to which we belong becomes immoral. Moral values include such traits as responsibility, love and mutual respect, discipline, justice and fairness, religious faith, cooperation, faithfulness, and filial love.

Summary of ideas

Teenagers should have a code or standard of right and wrong to help them decide about present or future sexual behavior.

IV. Evaluation

Here are some situations teenagers may find themselves in now or in the future. Let them-describe briefly what they will do in each of these situations.

1. You have very strict parents. They do not allow you to join social activities at school.

2. Your friends at school decide to try smoking marijuana. You know your father does not approve of this. Smoking is bad for the health, he says.

3. Your parents do not allow you to have male visitors at home. They say that you are too young to be entertaining suitors and that your primary interest should be your studies.

4. There is someone in your neighborhood you have a "crush" on. All you think about is your "crush". You can't seem to do anything except to swoon over this boy/girl. Unfortunately, the object of your "crush" doesn't even know you exist. This has affected your grades as well as your appetite.

5. Some of your friends go to the park with their boy/girl friends for a stroll. You have heard about what boys and girls do when they are in the park - they kiss, neck, and even pet. Your boy/girl friend is inviting you to take a walk in the same park.

6. You are on your way to a Wajib (Friday prayer). You meet some friends who invite you to join them to see a pornographic movie.

7. As a Muslim girl, you are not allowed to leave the house unchaperoned. One beautiful night, your friend invites you for a stroll along the beach.

APPENDIX A

The Sex Drive

Sexual adjustment is part of the individual's total development into maturity. The maturation of the sex organs, sex characteristics, and sex drives direct the individual along the pathway of development to adult attitudes and maturity. Sexual maturity helps to bring out what is best, most generous, and most constructive in the individual's life.

Sex is a basic drive upon which both race preservation and personal happiness depend. As a drive properly controlled, it becomes a powerful force aiding personal and social adjustment. From a positive point of view, it leads the young away from dependence on their parents and toward independence and the responsibility of loving, supporting, and caring for a family. In this respect, sex is a powerful, constant stimulus toward mature attitudes. If sexuality does not evolve properly, the whole process of growth and development is influenced negatively. Too much repression of sex tends to impair freedom and ease of functioning to the extent that mating and sexual satisfaction are not attained. On the other hand, too much sexual freedom can interfere with normal adjustments in love and mating functions to the degree that sexuality remains on an infantile level, at a desire for play and personal pleasure only. Disturbances in sexual development can lead to personal and social maladjustments.

The sex drive is a natural aspect of life that needs to be both understood and controlled. It should be considered squarely and frankly as a meaningful and respectable part of life. The goal of the sex drive is biological sexual maturity - The capacity to love, mate, reproduce, and care for the young. However, sex has more than reproductive functions; it is a factor in a happy family life, which is a partnership with a sharing of interests and ideas, mutual acceptance of responsibilities, self-realization and love.

A person matures sexually years before he can establish a home, and, according to social standard, gives expression to his sexual impulses and desires. He is expected to conform to the conventions within the culture. This means that the sex drive must be controlled if it is to become a positive force in the development of a personality. The requirement for self-control is not unreasonable when one remembers that any great power or drive has to be controlled or its creative force becomes a destructive menace, as illustrated by atomic power. The value of the drive depends upon how skillfully it can be managed.

Self-control motivated from within the individual is more effective than that resulting from outside forces. This implies that the student has the right to know as much as possible about his own sexual adjustment in relation to the demands of society. He needs to know what is expected of him and why. He needs to become familiar with ways and means of exercising control.

References:

1. Rubin, Isadore, and Kirkendall, Lester, ed. Sex in the Adolescent Years: New Directions in Guiding and Teaching Youth. New York: Association Press, 1969.

2. Kirkendall, Lester A. You're Maturing Now: Chicago: Science Research Association, Inc., 1968.

3. Johns, Edward B.; Sutton, Wilfred C.; and Webster, Lloyd E. Health For Effective Living. New York: McGraw-Hill Book Company, 1966.

APPENDIX B

Human Sexuality

The sexual attitudes of the children are formed from earliest childhood, but the sexual urges and forces do not make their appearance until the age of puberty. At this point, many changes occur in the young boy and girl. There is a sudden increase in growth. The secondary sexual characteristics appear, and the shape of the body becomes increasingly that of a woman or man.

In the male, puberty and adolescence begin with the appearance of nocturnal emissions or wet dreams. The penis, testes, and scrotum enlarge, and pubic, axillary and bodily hair appear. The occurrence of bodily hair in the face, chest, extremeties, is conditioned by hereditary and racial characteristics, and is, therefore, quite variable. The voice of the young boy breaks and attains a deeper tone. The body itself becomes more distinctly muscular.

At about this time, the young man begins to experience a distinct sexual urge or drive. The sexual forces awakened in him make him rather suddenly conscious of the strong sensual pleasure that can be associated with his genitals. There is, in the adolescent, a heightened sexual excitability, which in the male tends to lead to masturbation. This is particularly true of the male because his sexual urges and drives are more distinctly genital. In the adolescent female, the sexual urges are more diffused, and more associated with emotion and daydreams of romantic situations.

The awakened sexual drive produces in the youth, particularly in young men, a certain restlessnass of character so that they are often considered by their elders as different and difficult. Their moods are variable. They are impulsive. They find it difficult to concentrate their attention on anything for any great length of time. Often, even their school performance suffers. The young man is usually more interested in his "barkada", engaging in strenuous physical activities like basketball, swimming, and similar sports. The young woman tends to daydream a lot, and her attention is thereby also distracted. In both, there are the first stirrings towards an independent personality and existence, which tends to show itself as an emotional withdrawal from home and family, and the apparent failure to communicate with and develop an understanding between them and their parents or elders.

This is the critical period of development when parents should exhibit the greatest understanding possible. They should recognize the special features of this awakening sexuality and not misinterpret adolescent behavior as merely evidences of rebelliousness.

In early adolescence, the young can function sexually at a purely biological plane. Sexual urges can be so strong in the young man that he, in fact, tends to seek sexual gratification at a purely physical level. Sex at this point exists for the sheer pleasure it can provide. It is not in any way associated with emotion or love. It is only later that the young man's psych sexual development will proceed to the point where sex will be increasingly identified with affection.

The young woman, on the other hand, never quite goes through this difficulty. Her sexual drive is less specifically genital, and she tends, from the earliest awakenings of her sexuality, to associate sex with romantic situations. She is also seldom subject to that passing period in the male which has just been described.

As psychosexual maturity is attained, increasingly, love and sex become more and more clearly identified with one another. Some men who have become so conditioned to sexual expression at the purely pjysical level, unaware that they are maturing psychosexually, become ashamed and embarrassed by the fact that when they do fall in love later, that emotion seeks sexual expression. Their previous experience has always been for the mere pleasure of sex, so that they feel that they are unworthy if this sexuality is expressed in terms of the object of their love.

Other men never quite reach the degree of sexual maturity where sex is an expression of a deep interpersonal relationship with a woman. These men will continue to seek purely physical or biological sexual gratification throughout their lives in a context outside of the emotion. This means that they have been stunted in the development of their sexuality, and that their personalities are immature.

Source: Institute for the Study of Human Reproduction. Sex Education - A Basic Guide for Parents, Manila: University of Sto. Tomas University, 1974, pp. 36-37.

APPENDIX C

Sayings from the Prophet Mohammed On Human Sexuality

1. Avoid marriage with a woman of low intelligence; it is a great risk and will adversely affect her children.

2. Have you watched her closely? Do this so that you will know your differences and similarities.

3. Marry a loving and understanding woman.

4. Do I have to tell you what choice of a woman you should make? She should be one who is good to look at, is responsible and obeys orders faithfully.

5. A responsible woman is one who obeys her husband's orders, takes care of him, knows when and how to give in and is understanding.

6. Four factors are considered when one marries a woman: first is her wealth; second is her family's status; third is her beauty and fourth is her religiousness. Choose a religious woman and you shall be blessed.

7. Woman was created from a crooked rib. Force this to straigthen and it shall be broken. Work harmoniously and your marriage will be peaceful.

APPENDIX D

Social Practices of Muslims
(Maranao, Maguindanao, Tausug, Samal, and Yakan)

Man is a social being. He needs to associate with other beings. In order to understand others better, man needs to understand other cultures. Let us begin this discussion by a study of the Muslim culture. Let us discuss the social practices of our Muslim brothers - the Maranaos, Maguindanao, Tausugs, Samals and Yakans.

As prescribed by their religion, Muslim women do not mix socially with their men. In the early days, Muslim girls among the Maranaos, Tausugs and Samals, were kept hidden in their rooms. They were forbidden from being seen by men. Their rooms had only small openings called "Lamin" (Maranao), "Manaot na Beng-gawan" (Maguindanao) or "Angkop" (Tausug).

Over time, changes in social practices have occured. The Muslim boys and girls have more occasions to mix and meet. The following are some of these situations:

First Occasion - The Hari-Raya Feast

This celebration is held after the fasting period. All Muslims celebrate this day by going to the Masjid (church) and listening to the Khutba (sermon). On this occasion, boys and girls mix freely without fear of sanctions because Muslims believe that this is the time for greetings.

Second Occasion - The Wedding Celebration

Among the Maranaos, friends and relatives of the betrothed couple stay in the future bride's house two or three days before the wedding to help in the preparations. Boys and girls await this occasion eagerly for it gives them the chance to observe each other closely. It is not surprising, therefore, that such occasions turn out to be the start of another wedding.

Among the Maguindanaos, Tausugs, Samals and Yakans, to this practice is added the playing of native musical instruments like the "kolintang," "dabakan" and "gandingan" by the boys and girls.

Third Occasion - Whole Day Affair

Among Muslims, graduations, christenings ("kandure", Maranao) and circumcisions ("Pagturi", Maguindanao and Tausug; "Turi", Maranao) of male children are occasions for celebrations. Relatives and friends of the honorees select a big house to hold the party and food is served the whole day. People come and go as they wish. Elders allow the young boys and girls to mix in the spirit of cooperation.

Fourth Occasion - Death

When a death occurs among Muslims, they are expected to visit the dead during the wake and help in the funeral expenses. Ten pesos is the standard contribution for a dead adult and ₱5.00 for a dead child.

Among the Tausugs, contributions for the dead are greater if the dead is a relative. A wake ("Diyaga", Maaranao; "Pandiyaga," Maguindanao) is held in the dead person's house and it is, on this occasion, that young Muslims mix socially. They can either join in the games played for the dead such as "Karagatan", "duplo", and "sungka", or help in the kitchen prepare the food. In these instances, pairs are matched and usually the teasings end in marriage. Often, a young man who wishes to show his love for a maiden offers her food. Her acceptance of the food means acceptance of his love.

Fifth Occasion - Birth of the Prophet Mohammed

This day, the "Maulideen Nabi", is the Muslim's Christmas day. It is celebrated on the 12th of September or October ("Maulud"). Muslims put on their best clothes to join the procession which is made up of 2 lines, one for the men and the other for the women. When the procession reaches the church (Majid), a program is held and the young people are free to discuss with each other the points taken during the program. They are also free to join in the games.

Sixth Occasion - Harvest Celebration (Kabbun)

Among the Tausugs and Maguindanaos, fruit harvesting is an occasion for merry-making. Fruits such as the Mangosteen, "tagbak", balimbing, "wanni," lanzones, durian, "marang," "inogog", and pineappel abound in this region. People come to this occasion to share in the bounty. Young men and women find time to join each other's company. Oftentimes, these occasions end in elopement and marriages.

Seventh Occasion - Revelation of the Koran (Lailat Al-Qadir)

During the Ramadan or the fasting feast, every Muslim observes the 10:00 o'clock nightly ritual at the masjid. It is the Catholic's counterpart for penance and sacrifice. During this period, Muslims are expected to stay in church and avoid hurting others. The term "lail" or "lailah" means night and "qadr" means measuring or change of fate.

Eighth Occasion - All Saint's Day (Nispu at Taiteh)

Before this day, Muslims offer prayers and hold Quranic Readings in the Masjid to Allah (God) for their dead.

Ninth Occasion - The Banquet

Among the Maguindanaos, Tausugs, Samals and Yakans, a banquet is given for those who have come from Mecca, Saudi Arabia and earned the title "hadji".

Among the Maranaos, however, a banquet is given for those who have passed the Board or Bar Exams. At the airport, friends and relatives of the honoree join together to stage a parade of no less than 50 cars. Each car carries a boy and girl.

A stage is prepared for the honoree. He is then requested to narrate his experiences that led him to great success.

Tenth Occasion - Bathing Practice

The Tausugs call this practice "Panulak Balah"; the Maranaos, Maguindanaos, Samals and Yakans call it "pagpaigo sa ragat".

On the first Wednesday of the month of "Sappal," all Muslims, young and old, male and female, except the sick, go to the lake (Ranao) to bathe. Each of them receives a blessing from the scholar (Ustaj or Alim) to free the body of impurities.

Merry-making follows among the young. Food is shared among them.

VOCABULARY WORDS

Pilipino	English	Maguindanao	Maranao	Tausog	Samal	Yakan
Banal na tuntuning pang-Islam	Holy Laws in Islam	Shari-a	Shari-a	Shari-a	Shari-a	Shara Islam
Kabataan	Adolescent	Akil-Balig	Akir-Balig	Akil-Balig	Akil-Balig	Nubul/Mudjang, Padsubel
Kagulangang seksuwal	Sexual Maturation	Manggudah	Mikusad a raga o Mangoda	Simangputna	Sangpot-na	Balig
Kalinangang seksuwal	Sexual Development	Pandalagah	Siabot niyan so Marato o Mapin	Dimagana	Inkandana	Akil balig
Ereksiyon	Erection	Iatog	liatogan	liyatogan	Ngeddong	Keddong
Guro	Teacher	Guro	Guro	Guro/Mastal	Mastal	Gulu
Hangaring seksuwal	Sex Drive	Midsinah	Kiabalingan	Nagkajarian	Magkarajann	bais
Impertilidad	Infertility	Di-pambatah	Di-pumbowata pasi, Ana'y niyan	Bibibis	tagabibis	tahon gai makaanak
Obligasyon	Obligatory	Wajib	Wajib	Wajib	Wajib	Wajib
Paaralang Muslim	Madrasa	Madrasa	Madrasa	Madrasa	Madrasa	Madrasa
Pagbibinata Pagdadalaga	Adolescence	Akir-Balig	Akir-Balig	Akil-Balig	Baligna	Mudjang
Pagkabaog	Sterility	Buog	Baluk	Tamanang	Tamanang	gai-makaanak
Paglabas ng Tamod	Emission Ejaculation	Pitak	Miyaoma	Mannih	Minnih	neddong ar pagguwa bene lellahin mohe

Pilipino	English	Maguindarao	Maranao	Tausog	Samal	Yakan
Sakit sa babae	Venereal disease	Sakit-babay	Benereah	Sakit babae	Sakkis-randa	Teob/saki dende
Salsal	Masturbation	lasorh	kaplelo	magpalatag	Ngo-jok	lasi, salsal
Sari, Seks	Sex	Sinah	mama o di na babae	usibah	maggamah	maggamah
Iskolar	Scholar	Ustaja	Ustaje	Ustaj's male	Ustaj's	Ustaj's
Seksuwalidad	Sexuality	Magjinah	Kiatokewan niyan so kapangaroma	Magusibah	Nganjamah	Pagkalella, Pagkadende
Seksuwalidad ng tao	Human Sexuality	Magjirah	Kambabagonnan sa malay	Mangusibah	Manosirah tao nga/amah	Pagkalella, Pagkadende
Simbahan	Church	Masjid	Majid	Masjid/Tanggol	tanggol	langgal/Masjid

A POPULATION EDUCATION UNIT IN HEALTH EDUCATION

SECOND YEAR - MORTALITY TRANSITION

Suggested Time Allotment: 10 class periods

OVERVIEW

Many people believe that rapid population growth, such as we are experiencing in the Philippines today, is the result of a high birth rate. Actually, from a demographic point of view, it is the sharply declining death rate accompanied by a steadily high birth rate which results in a rapid population growth. This has caused the explosive growth in population of developing countries. Statistics show that fertility rate in the Philippines has remained high, but there has been a dramatic decline in death rate during the last decade.

This unit deals with mortality transition in the Philippines, the causes of high mortality in the past, and the causes of mortality decline at present. It emphasizes the demographic fact that the explosive growth in population is attributed to the increasing gap between birth rate and death rate. It is worthwhile to note that some of the concepts relative to mortality transition were introduced in Grade V Health Education. The present unit builds on this and at the same time develops new concepts and new skills. For the concepts that have already been introduced in Grade V, new approaches are utilized in keeping with a basic principle of "utilizing fresh approaches to old problems."

A number of activities in this unit integrates skills learned in other subjects, like computing death rate and analyzing and interpreting graphs and tables.

The suggested strategies are laid out in great detail to be of maximum use to the teacher. For added help, the unit is divided into four lessons with suggested time allotment for each lesson. The whole unit will take about ten class periods to accomplish, including a class period for evaluation which the teacher may wish to give at the culmination of the unit.

The teacher is encouraged to use local data, whenever these are available, to make the teaching-learning process more meaningful to students. Data on births and deaths can be obtained from the local civil registrar's office, while records of causes of illness and deaths are available at the local health office. Recent data on Regions IX and XII have been added to the appendix to help the student further. These data have to be completed by the student belonging to the provinces in these regions.

Suggested evaluation techniques are given; however, the teacher is free to use or evolve devices he thinks are most appropriate for his class.

This unit has been included in Unit II, pp. 135-164 of the YDT Guide for Second Year. It is suggested however, that this particular unit be used instead since it has been developed with due consideration for the Muslim culture.

This unit may follow the one on "Prevention and Control of Diseases" and enriches said unit with population education concepts.

Appropriate instructional materials are included in the appendices.

I. OBJECTIVES

A. General

1. Identify the mortality transition over time.
2. Identify the causes of mortality transition over time.
3. Realize that the cause of "population explosion" in the Philippines and in similar developing countries is a sharply declining death rate and a steadily high birth rate.

B. Specific

1. Define terms relevant to the topics on mortality.
2. Recognize and raise problems on mortality.
3. Analyze data gathered on births and deaths.
4. Interpret graphs and tables on mortality.
5. Make inferences from information revealed in graphs and tables on mortality.
6. Formulate generalizations from available information on mortality.

II. CONTENT

A. Concept

Mortality transition is change from one death rate to another death rate.

B. Related ideas

1. Generally, mortality transition proceeds from high death rate to low death rate.

2. Mortality transition over time from high death rate to low death rate can be slow or rapid.

3. In the Philippines, mortality transition is from high death rate to low death rate and the transition has been rapid.

4. "Population explosion" in the Philippines is caused by the sharply declining death rate and a steadily high birth rate.

5. Crude death rate and age-sex specific death rate are measures of mortality.

6. The local civil registrar's office records and keeps data of births and deaths and other vital statistics.

7. Mortality rate in the Philippines is highest among infants and the age group 70 years and over.

8. Mortality rate varies with age and sex.

9. Men have higher mortality than women at every year of life.

10. The causes of high mortality are epidemic diseases, food shortage, and poor sanitation.

11. The causes of mortality decline are progress in medical science, improved nutrition, improved sanitation, social reforms, change from home handicrafts to machine factory, and improved transportation.

C. In terms of topics

Mortality Transition

1. Trend of Mortality in the Philippines
2. Measures of Mortality
3. Mortality Rates by Age and Sex
4. Causes of High Mortality Rate
5. Causes of Mortality Rate Decline
6. Health Programs to Reduce Mortality Rate

III. SUGGESTED ACTIVITIES

Lesson 1
(2-3 class periods)

A. Specific Objectives

1. Define birth rate, death rate, and rate of natural increase.

2. Interpret graphs related to birth rate, death rate, and rate of natural increase.

3. Analyze data gathered on births and deaths in a community.

4. Construct graphs to present data gathered.

5. Appreciate data on births and deaths by

   a. discussing the importance of registering events of births and deaths.

   b. writing a letter of appreciation to the local civil registrar citing the great importance of the work of the office.

6. Show that the explosive growth in population in the Philippines is due to a rapidly declining death rate and a steadily high birth rate.

B. Subject Matter

Mortality Transition
Trend in Mortality in the Philippines
Relation of Mortality to Population Growth
Measures of Mortality

C. Materials and References

Graph on "Estimated Rates of Birth, Death, and Natural Increase, Philippines, 1903-1970", Appendix A, p. 49.

A table on "Estimated Total Population and Total Deaths, Number and Rate/1,000 Population, Philippines, 1973," Appendix B, page 50.

D. Suggested Procedure

Opener

Present a picture cutout of a scene showing a crowd, say at an Independence Day celebration during rush hours, after office hours, on a market day, at a fiesta celebration or the Hariraya celebration, etc. See to it that the size of the crowd is impressive.

Development

Encourage students to talk about the picture, calling attention to the vast sea of humanity depicted in the picture. Lead them to inquire into why there are so many people in the world, in the Philippines, in their community today. Then, ask: "Was this situation true in the past?"

The students are likely to give varied answers to this question, such as: too many babies are being born today; less people die at the present time; many people marry young; etc. Accept all answers given and lead them to agree to look for further evidences from authoritative sources to justify their answer.

Remind students to take note of their answers for they will go back to these later.

1. Have students collect data on birth rates and death rates of the town, city, or province for a 20-year or more period from the local civil registrar's office. As it is impractical for the whole class to go to the Civil Registrar's Office for the needed data, have only a group or two to do this, while the other groups may collect data on birth rates and death rates of the Philippines from reports of the Bureau of the Census and Statistics.

2. Assign each group to construct graphs on the data gathered.

   Usually, these data are available in absolute figures or numbers. They can be plotted on the graphing paper as such, or the students, in consultation with their Mathematics teachers, may convert these data to rates, applying the following formula:

$$\text{Crude Birth Rate (CBR)} = \frac{\text{No. of Births in a given year}}{\text{Midyear population of the town, province or city}} \times 1{,}000$$

$$\text{Crude Death Rate (CDR)} = \frac{\text{No. of deaths in a given year}}{\text{Midyear population of the town, province, or city}} \times 1{,}000$$

$$\text{Rate of Natural Increase (RNI)} = \text{CBR} - \text{CDR}$$

Before proceeding to the interpretation of the data gathered, find out what the students know about these terms:

Birth rate is the total number of births per 1,000 persons in a given place for any given year.

Death rate is the total number of deaths per 1,000 persons in a given place for any given year.

The difference between the birth rate and the death rate for a particular year gives the rate of natural increase. It is so called because it gives the increase in a population due to natural causes, which are births and deaths. Births and deaths are the two most significant causes of population change.

3. Students report on their interpretation of the data they had gathered. The following questions may guide them in the interpretation of the data:

What is the trend in the birth rate of our town, city, or province? Of the Philippines?

What is the trend in the death rate of our town, city, or province? Of the Philippines?

What can you say about the gap between the birth rate and death rate? Is it increasing or decreasing?

What does this gap mean in terms of the population growth of our town, city, or province? Of the Philippines?

4. If students were not able to get data on Philippine birth rates and death rates, present the graph on "Estimated Rates of Birth, Death, and Natural Increase, Philippines, 1903-1970", Appendix A, p. 49. Call attention to the title of the graph, and then ask:

How would you describe the birth rate and death rate in the Philippines in 1903?

How would you describe the trend of birth rate from 1903 to 1970?

What can you say about the trend in death rate?

How does the death rate in 1903 compare with that in 1970? What is the meaning of this downward trend in death rate?

What is the significance of this sudden decline in death rate to the population of the country?

This set of questions should elicit the following information from the graph.

a. Birth rate in the Philippines is steadily high. This means that more and more people are added to the population. Consequently, this enlarges the base of the population.

b. Death rate is declining sharply. This means that people live longer. This should not be construed to mean that less people are dying. Man will die, but that death has been postponed.

c. The high birth rate and the sharply declining death rate have resulted in a rapid population growth or population explosion.

5. Using again the data on death rate in the community, assist students to interpret mortality transition in their community.

The following questions may be asked:

What can you say about the death rate of our community from year to year? Is the transition or change from one rate to another always from high death rate to low death rate? What is mortality transition?

Present data on death rates in the Philippines from 1920 to 1972, Appendix B, p. 50. Ask the same questions as those in the above. Lead students to note the fluctuations in the death rates, as in the following:

Year	Death Rate
1968	6.9
1967	7.5
1966	7.2
1965	7.0
1964	7.1

From the above discussions, encourage students to sum up their ideas about mortality transition.

Relate the data on total deaths, Appendix B, p. 50. with that of the graph on "Estimated Rates of Births, Deaths, and Natural Increase, 1903-1970, Philippines," Appendix A, p. 49. previously presented. Focus students' attention on the fact that while the death rate may be declining or becoming lower, still a great number of people are dying. To illustrate, cite the death rate of 1939 which is 16.9. The number of people who died was 273,141. Compare this with the death rate in 1972, which was 7.3 and a total death of 285,761. Further, lead students to note that the number of total deaths remains high but that the death rate is steadily declining. Ask students to explain this phenomenon.

This discussion should give students a clear and functional understanding of the demographic concepts of rate and number.

Recall the question initially asked at the beginning of the unit. Ask students to recall their answers. Lead them to evaluate their hypotheses or positions in the light of evidences presented.

6. Present again the graph on "Estimated Rates of Birth, Death, and Natural Increase, Philippines, 1903-1907," Appendix A, p. 49. This time focus attention on the line representing Death Rate, especially noting the information on the x-axis in relation to the change in mortality. Ask:

> How many years did it takefor mortality in the Philippines to decline? How will you describe this transition from high death rate to low death rate? Is it slow or rapid?

For a macro level perspective of mortality transition, present the demographic transition model, Appendix C, p. 52. It is not so much the concept of demographic transition that this part of the lesson wishes to convey as it is mortality transition over time. However, there is need to introduce, very simply, what the model is about.

Say:

> This model illustrates the changes that happened to the birth rate and death rate of populations of many countries, mostly European countries. It is called demographic transition. There are 3 stages in demographic transition. The first stage is one of high birth rate and high death rate and a consequent low natural increase. During this period, people were short-lived; diseases were prevalent resulting in high infant and child mortality; birth rate was high because there were certain culture values that favored having many children.
>
> In the second stage, birth rate continued to be high, but death rate declined rapidly resulting in a rapid natural increase. There are causes for this rapid decline in mortality as we shall soon find out in this unit. What happened during this stage was that babies

who would have died at birth lived. Their parents lived longer, too. But the birth rate remained still high.

In the third stage, both birth rate and death rate are stabilized at a low level and there is a consequent more or less stable population. Modern societies, mostly technically advanced countries, are in this stage. In these countries, birth rate is low because urban living does not encourage having many children. There is a decline in infant and child mortality. People live longer.

The demographic transition took more than 100 years to happen.

Compare the number of years it took for mortality to decline in the experience of European countries with that of the Philippines.

State and generalization about mortality transition with reference to time.

Relate this time period in mortality transition from high to low death rate in the Philippines to rapid population growth.

7. From the above discussion, lead students to identify the measures of mortality.

   Crude Death Rate is the total number of deaths occurring per year per 1,000 population. It is "crude" because it tells only the rate at which people in a given country are dying, without regard for any other characteristics of the population. It does not make an allowance for differences in mortality among persons of different types. Age and sex are significant omissions.

   Age-sex specific death rate tells the number of deaths among a given age-sex per 1,000 people in that age-sex category; E.g., death rate of males at 15 to 19 years; death rate for all women at 45 to 49 years.

8. Have students relate their experiences at the local civil registrar's office. Lead them to discuss these questions:

   Why should we register births and deaths?

   Why are records of birth and death important to a community?

Summary of ideas developed

1. Mortality transition is change from one death rate to another death rate.
    a. Generally, mortality transition proceeds from a high death rate to a low death rate.
    b. Mortality transition can also proceed from a low death rate to a high death rate.
2. Mortality transition over time from high death rate to low death rate can be slow or rapid.
3. In the Philippines, mortality transition was from high death rate to low death rate and the transition was rapid.
4. Population explosion in the Philippines is caused by the sharply declining death rate and a steadily high birth rate.
5. Crude death rate and age-sex specific death rate are measures of mortality.
6. The local civil registrar's office records and keeps data of births and deaths and other vital statistics.

Lesson 2

(1 class period)

A. Specific Objectives

1. Interpret tables and graphs on mortality, by age and sex.
2. Make inferences on the information revealed on graphs and tables on mortality.
3. Formulate the generalization that mortality varies with age and sex.

B. Subject Matter

Mortality by Age and Sex

C. Materials

Table on "Mortality: All Causes, by Age and Sex (Number and Rate Per 100,000 Population) - Philippines, 1972," Appendix D, p. 53.

Graph illustrating the table above, Appendix E, p. 54.

D. Suggested Procedure

Opener

Present these questions and encourage students to make guesses or tentative answers:

What age has the highest mortality rate?

What is the safest age or the age with the lowest mortality rate?

Who dies earlier, the male or the female?

Who lives longer, the male or the female?

Development

1. Present the table on "Mortality: All Causes, by Age and Sex (Number and Rate Per 100,000 Population) Philippines, 1970," Appendix D, p. 53.

Assist students to interpret the table by asking these questions:

What is the table about? What information can you get from the table?

What can you say about the percentage of deaths from age group to age group? Which age group has the highest percentage of deaths? The lowest?

How do you account for the high percentage of deaths occuring at these ages?

For a concrete picture of the table, present the graph on the same data, Appendix E, p. 54.

From the table and graph mentioned above, students should be able to discover the following facts:

(1) Mortality is high among infants, especially during the first year of life. The rate then drops sharply as the infant grows into childhood, and remains at a rather low level throughout adolescence. Mortality then increases with advance in age, first gradually and after about age 40, more rapidly. It is not until age 70 and over that the mortality rate is again as high as in the first year of life.

(2) The percentage of deaths is greatest in the first year after birth. A second peak in the number of deaths occurs after the age of 70.

(3) Age group 10-14 is the safest stage of life. This is the stage with the least mortality. Children of that age have passed the hazards of the acute infections of infancy and early childhood. They have yet to face the chronic diseases of the later years.

(4) Men have higher mortality than women at every age.

Summary of ideas developed

1. Mortality rate varies with age and sex.
2. Mortality rate in the Philippines is highest among infants and the age group 70 years and over.
3. Men have higher mortality rate than women at every year of life.

Lesson 3
(3-4 class periods)

A. Specific Objectives

1. Enumerate the causes of high death rate.
2. Explain the factors which contribute to mortality decline.
3. Analyze information gathered on the causes of high mortality and mortality decline.

B. Content

Causes of High Mortality Rate
Causes of Mortality Rate Decline

C. Instructional Materials

Word game materials
Graph on "Estimated Rates of Birth, Death, and Natural Increase, Philippines, 1903-1970". (Appendix A, p. 49).

D. Suggested Procedure

Opener

Review the history of mortality transition in the Philippines as gleaned from the graph on "Estimated Rates of Birth, Death, and Natural Increase, Philippines, 1903-1970." (Appendix A, p. 49.)

Call attention especially to the line representing Death Rate. Have the students describe the trend of death rate from 1903 to 1970. Lead students to raise questions related to the trend of mortality, such as:

What are the causes of high rate of mortality?

What are the causes of mortality rate decline?

Development

1. Play a word game.

HIGH MORTALITY RATE

Epidemic diseases
Food shortage
Famine
Malnutrition
Poor sanitation
Inadequate personal hygiene
Lack of sanitary facilities
Cholera
Smallpox
Bubonic plague
Poor water supply
Poor sewage disposal
Insect pests
Typhus fever
Crop failure
Rat infestation

LOW MORTALITY RATE

Immunization
Progress in medical science
Sterilization
Personal cleanliness
Social reforms
Improved agricultural techniques
Change from home handicraft to machine factory
Improved sanitation
Improved transportation
Child labor laws
Water purification
Hospitals and clinics
Sanitary sewage disposal
Improved nutrition
Food distribution
Increased food production
More and better kinds of products
Antibiotics
Surgery

Instructions to the teacher: Write the words in the lists above on strips of paper (size: 3" x 11", preferably colored paper). Put all strips together in a box and shuffle.

Prepare a stick or tack board with 2 columns. Two pocket charts will do. Label one column HIGH MORTALITY RATE; the other, LOW MORTALITY RATE.

Directions for the game: Ask students to pick one strip, read it and stick or tack it on the tack board or place it in the pocket chart under the appropriate column. More than one student may be called at a time.

After the students have completed the game, ask them to analyze the 2-column word list. Encourage them to classify these words into groups or categories. Hopefully, the class would come up with something like the following:

CAUSES OF HIGH MORTALITY RATE

1. Epidemic diseases
    a. Cholera
    b. Smallpox
    c. Bubonic plague
    d. Typhus fever

2. Food shortage
    a. Famine
    b. Malnutrition
    c. Crop failure
    d. Rat infestation

3. Poor sanitation
    a. Inadequacy of sanitary facilities
    b. Poor water supply
    c. Poor sewage disposal
    d. Insect pests
    e. Inadequate personal hygiene

CAUSES OF MORTALITY RATE DECLINE

1. Progress in medical science
    a. Immunization
    b. Surgery
    c. Hospitals and clinics
    d. Antibiotics
    e. Sterilization

2. Improved sanitation
    a. Water purification
    b. Sanitary sewage disposal
    c. Personal cleanliness

3. Social reforms
    a. Child labor laws

4. Improved agricultural technique
    a. Increased food production
    b. Improved nutrition

5. Change from home handicraft to machine factory
    a. More and better kinds of products

6. Improved transportation
    a. Food distribution

For the next activities, assign students to read and interview any knowledgeable person they are acquainted with on the causes of high and low mortality. Check the list pre - by the class against the information obtained. Focus attention pared on the relationships of the events and factors listed to high and low mortality.

Examples:

1) Explain how change from home handicraft to machine factory contributes to mortality rate decline.

2) How does improved transportation lead to decline in mortality rate?

Encourage students to cite events in the past depicting causes of high mortality rate.

Examples:

1. Great famine/epidemic in history, such as:

   a) In Ireland in the 1840's, several hundred thousands of people died of starvation.

   b) Western Europe experienced more or less 450 localized famines between the years 1000 to 1855.

   c) World-wide epidemics in history, such as the Black Death in 1348, is said to have killed 25 million people which was ¼ of the population of Europe.

2. Buzz session on the causes of high and low rates of mortality

   Divide the class into groups with 4-5 members each. If there are existing organized groups, utilize them. Assign one group to discuss the causes of high mortality rate and the other, the causes of mortality rate decline. Remind them of the points given in the assignment, such as: relationships of events on factors to high and low mortality and historical events depicting causes of high mortality.

   After the buzz sessions, students should finalize their report.

3. Reporting to class

   Encourage students to utilize various ways of giving their group reports, like: dramatized skits, simulated radio or T.V. interviews, panel discussions, etc.

   This reporting may take two sessions.

Summary of ideas developed

1. The causes of high mortality rate are epidemic diseases, food shortage, and poor sanitation.

2. The causes of mortality rate decline are progress in medical science, improved nutrition, improved sanitation, social reforms, change from home handicraft to machine factory, and improved transportation.

Lesson 4
(2-3 class periods)

A. Specific Objectives

1. Gather information about the health programs in the community from resource persons by:

    a. Asking intelligent questions.
    b. Taking down notes.
    c. Summarizing ideas gathered.

2. Describe the health programs aimed to reduce mortality.

3. Express one's ideas and opinions on how the health programs reduce mortality.

4. Accept one's responsibility in the health programs by participating actively in them.

B. Content

Health Programs to Reduce Mortality Rate

C. Instructional Materials

Results of survey of what students already know about the health programs in their community

Information about the health programs of the community gathered from resource persons

D. Suggested Procedure

Opener

Conduct a survey to find out what the students already know about the health programs in the community. (Baseline data) The following questions may be asked:

1. What health facilities and services should be provided in order to maintain the health of the community?

2. Which of these health services are present or provided for in our community?

3. Have you or your family availed of these services? If so, which ones?

These survey questions should be written on the chalkboard and given as an assignment prior to this lesson.

Development

1. Present and analyze the results of the survey in class. As a student gives his answers to the questions orally, another may write these on the chalkboard.

If the students failed to give all the answers to the first question, help them to give all.

For the second question, take note of the services or programs which you know are present in the community, but which the students failed to identify. Emphasize these services in the teaching of the present lesson.

For the third question, take note, likewise, of those programs and services the students or their families have not utilized, availed of, or participated in. This is an opportunity to discuss their responsibility in utilizing the health services and facilities present in their community.

2. Summarize the health programs and services in the community as gleaned from the above survey results and discussions.

The following summary may be arrived at:

Roughly, public health work may be divided into two main categories: the environmental and the human. The first involves control of the surroundings to make them healthful and free from contamination and from danger. The second involves services to the people themselves to improve their physical strength and to prevent the spread of diseases if these should break out.

(1) Environmental Health Programs

(a) Safe water supply
(b) Sewage treatment and disposal
(c) Refuse collection and disposal
(d) Milk and food sanitation
(e) Water, soil, and air pollution control
(f) Insect pest and rodent control

(2) Communicable Disease Control

(a) Epidemiology is the study of the distribution of a disease or pathological condition in the population and of those host agents and factors that influence this distribution.

(b) Laboratory work - has to do with identifying the major groups of infectious organisms and diseases associated with them. This is important in planning control measures and in differentiating diseases that cause similar signs and symptoms.

(c) Immunization

(d) Treatment

(3) Medical Care

Hospital and hospital-related services

(4) Programs for Special Groups

(a) Maternal and Child Care
(b) Services for children of school age
(c) Services for handicapped children
(d) Tuberculosis control
(e) Leprosy control
(f) Venereal disease control

(5) Education Education

(6) Mental Hygiene Program

(7) Family Planning Program

(8) Nutrition Program

3. Invite the local health officer to give a talk on the health programs of the community. Arrangement for this lecture should be made before this activity.

This lecture should give the students an idea of the health programs in their community. Hopefully, through this lecture, they might realize that there are services and programs in their community they or their families may not be aware of, and, therefore, may not have utilized to advantage.

Summarize the important points in the talk of the resource person.

4. Group discussion

Conduct a group discussion on the following:

How do health programs help reduce mortality?

How can we participate actively in the various health programs in the community?

Allow 15-20 minutes for this group discussions. Then have each group chairman or designated group members render reports on the ideas presented during the group discussions.

Generalization

Lead the class to state the ideas developed.

1. Health programs in the community aim to protect and promote the health of people, hence to reduce mortality.

2. Health programs in the community may be divided into two main categories: the environmental and the human.

3. The environmental health programs include safe water supply, sewage treatment and disposal, refuse collection and disposal, milk and food sanitation, water, soil and air pollution control, and insect pest and rodent control.

4. Health services for people themselves include communicable disease control, medical care, programs for special groups, health education, mental hygiene program, family planning program, and nutriton program.

5. People have a responsibility to participate in the health programs of the community.

E. Evaluation

1. Objective Type (Sample items)

(a) Multiple Choice

Directions: Choose the best answer.

1. Countries which have rapid population growth have

a. high birth rate.
b. low death rate.
c. high birth rate and low death rate.
d. advanced medical and health facilities.

2. Which of the following is the reason for the decline in mortality in the Philippines?

   a. advancement in medical science
   b. high standard of living
   c. improved public health
   d. all of the above

3. Health-wise, age 10 seems to be the safest because at that age, the child

   a. is old enough to ward off infections.
   b. has had all the immunization against communicable diseases of children.
   c. has passed the hazards of the acute infections of infancy and early childhood.
   d. is not prone to accidents at this age.

4. The second peak in the number of deaths occur at

   a. 20 years and over.
   b. 45 years and over.
   c. 50 years and over.
   d. 70 years and over.

5. Which of these groups of persons has the highest death rate?

   a. infants
   b. children
   c adolescents
   d. working adults

6. Which of the following statements is true?

   a. Men have higher mortality rate than women at every year of age.
   b. Women have higher mortality rate than man at certain ages.
   c. Men have higher death rate than women at certain ages.
   d. The rate of mortality for men is the same for women for all age groups.

Question numbers 7, 8, 9, and 10 can be answered by referring to the graph, Appendix A, page 49.

7. The death rate in the Philippines from 1903 to 1970

   a. has remained high.
   b. is fluctuating, sometimes high, sometimes low.
   c. has declined gradually.
   d. has declined sharply.

8. In what year bracket was there the greatest lowering in the death rate?

   a. between 1903-1920
   b. between 1920-1940
   c. between 1940-1960
   d. between 1945-1970

9. In what year was there the greatest natural increase?

   a. 1930 c. 1960
   b. 1940 d. 1970

10. When was population growth the highest?

   a. 1930 c. 1960
   b. 1940 d. 1970

(b) True or False

Directions: Read the sentences carefully. On the spaces provided, write T if the statement is True and F if the statement is False.

____ 1. A high mortality rate is experienced during the first year of life.

____ 2. One cause for high mortality rate is drinking water from the well.

____ 3. Barangay clinics do not help decrease the high mortality rate.

____ 4. Health programs help decrease mortality rate.

____ 5. Some causes for high mortality rate are epidemics, malnutrition, and unsanitary conditions.

2. Essay Type (Sample items)

1. What purposes are served by the mortality records in a community?

2. Describe a health program in your community and your participation in it.

3. What is the trend of mortality in your community? Cite evidences to support your answer.

For evaluation of skills

1. Teacher observation of students' ability to

   a. answer questions intelligently
   b. interpret graphs accurately.
   c. construct graphs correctly.
   d. gather information.

2. Teacher appraisal of students' assigned work, notebooks, etc., using such criteria as

    a. substance of content
    b. accuracy of content
    c. neatness
    d. effort put in work
    e. etc.

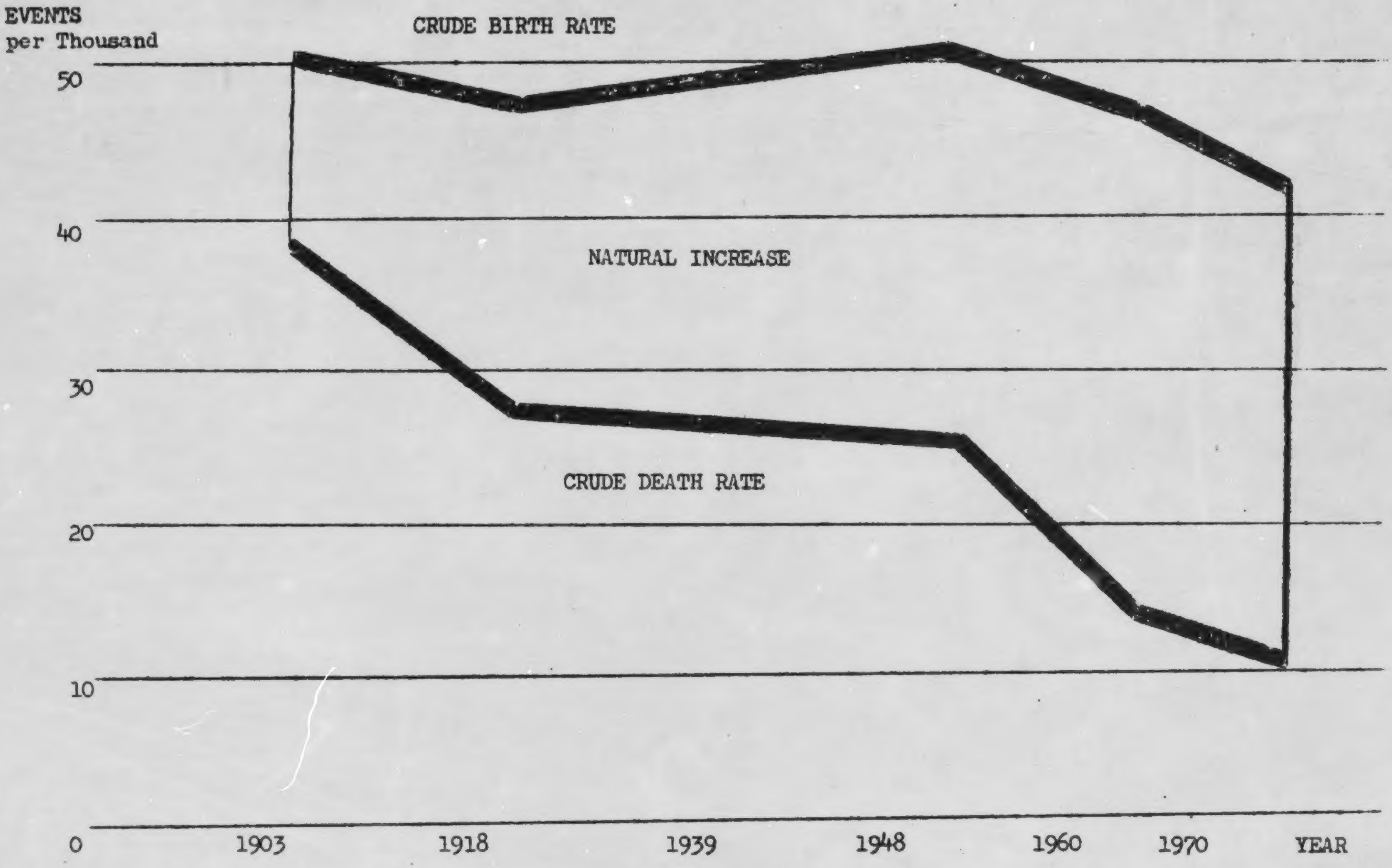
For evaluation of attitudes

1. Teacher observation of students' ability to

    a. perform assigned tasks within a group
    b. work well with classmates and groups

2. Report of participation in community health projects

APPENDIX A



Estimated Rates of Birth, Death and Natural Increase
Philippines, 1903-1970

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APPENDIX B

ESTIMATED TOTAL POPULATION AND TOTAL DEATHS, NUMBER AND RATE/1,000 POPULATION, PHILIPPINES, 1973

YEAR	ESTIMATED TOTAL POPULATION	NUMBER	RATE
1973	41,831,045	283,475	6.8
1972	39,040,100	285,761	7.3
1971	37,959,000	250,139	6.6
1970	36,849,000	248,251	6.7
1969	37,158,000	255,785	6.9
1968	35,883,000	253,841	7.1
1967	34,6566000	241,548	7.0
1966	33,477,000	240,865	7.2
1965	33,477,000	240,865	7.5
1964	31,270,000	214,904	6.9
1963	30,241,000	215,743	7.1
1962	29,157,000	213,439	7.3
1961	28,313,000	213,587	7.5
1960	27,410,000	212,688	7.7
1959	26,926,400	197,423	7.3
1958	26,096,600	218,186	8.4
1957	25,292,400	241,469	9.5
1956	24,513,000	219,719	9.0
1955	23,757,600	219,798	9.0
1954	23,025,500	217,650	9.5
1953	22,310,000	239,988	10.8
1952	21,628,300	241,020	11.1
1951	20,961,800	237,937	11.4
1950	20,315,800	226,503	11.1
1949	19,689,800	231,151	11.8
1948	19,143,800	234,467	12.7
1947	18,785,700	238,527	12.7
1946	18,434,000	278,546	15.1
1941-1945	NO DATA	AVAILABLE	
1940	16,459,900	273,480	16.6
1939	16,152,100	273,141	16.9
1938	15,813,600	261,848	16.6
1937	15,444,500	254,740	16.5
1936	15,083,700	239,107	15.9
1935	14,731,300	257,181	17.5
1934	14,387,100	239,705	16.7
1933	14,051,400	227,594	16.2

1932	13,724,000	211,809	15.4
1931	13,404,900	240,825	18.0
1930	13,094,100	252,988	19.3
1929	12,791,700	237,733	18.6
1928	12,497,700	218,076	17.5
1927	12,212,000	220,328	18.0
1926	11,934,600	229,988	19.3
1925	11,665,500	206,454	17.7
1924	11,404,800	228,554	20.0
1923	11,152,400	202,981	18.6
1922	10,908,400	203,237	18.9
1921	10,672,700	205,654	19.4
1920	10,445,300	200,690	119.2

Source: Table 4, "Live Births, Total Deaths, Deaths Under 1 Year, Maternal Deaths and Postal Deaths, No. and Rates, Philippines, 1923-1973," Disease Intelligence Center, Department of Health, Philippines Health Statistics, 1972, Manila, p. 13.

APPENDIX C
THE MODERN PERIOD (AFTER C. 1650)

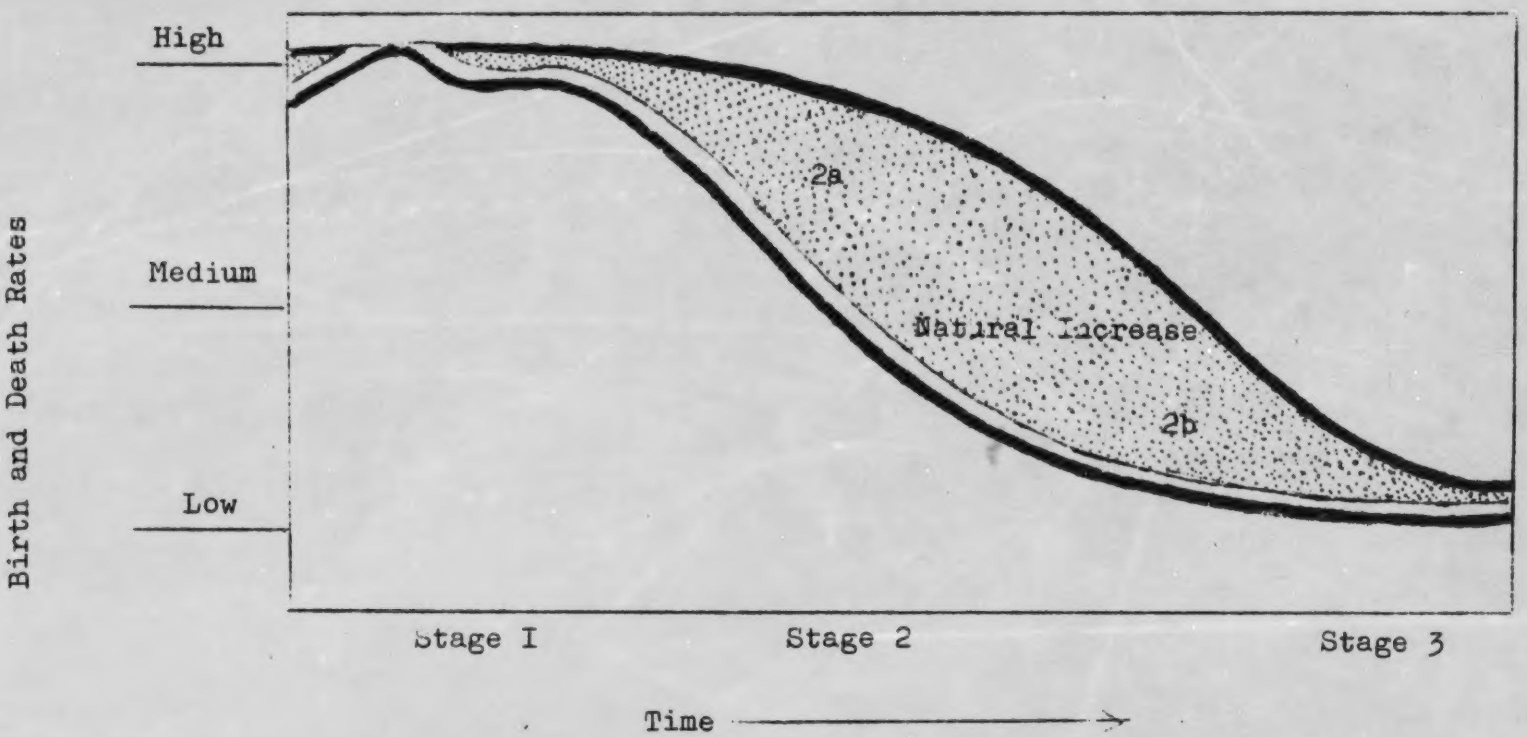


Figure 2.4 The demographic transition model.

SOURCE: Trewartha, Glenn T., A Geography of Population: World Patterns, New York: John Wiley & Sons, Inc., 1969, p. 45.

APPENDIX D

MORTALITY: ALL CAUSES? BY AGE & SEX

Number & Rate/100,000 Population
PHILIPPINES
1972

A G E	Number of Deaths			R A T E		
	Both Sexes	Male	Female	Both Sexes	Male	Female
ALL AGES....	285761	160939	124822	7.3	8.3	6.4
Under 1 year..	65719	38153	27566	47.6	54.1	40.8
1 - 4 yrs.....	47883	25615	22268	9.3	9.7	8.9
5 - 9 yrs.....	12494	6968	5526	2.2	2.4	2.0
10-14 yrs.....	5492	3178	2314	1.2	1.3	1.0
15-19 yrs.....	6196	3841	2355	1.6	2.0	1.2
20-24 yrs.....	7686	4978	2708	2.2	3.0	1.5
25-29 yrs.....	6929	4343	2586	2.3	2.9	1.6
30-34 yrs.....	7804	4724	3080	3.1	3.8	2.5
35-39 yrs.....	8765	5311	3454	4.3	5.1	3.4
40-44 yrs.....	8159	4959	3200	5.1	6.2	4.0
45-49 yrs.....	8832	5356	3476	6.6	8.4	5.0
50-54 yrs.....	9835	5905	3930	8.6	11.0	6.5
55-59 yrs.....	10077	6212	3865	10.4	13.7	7.6
60-64 yrs.....	12360	7144	5216	15.8	19.0	12.8
65-69 yrs.....	11024	5239	4785	20.3	23.6	17.0
70 yrs. and over........	54297	26775	27522	61.9	66.0	67.4
Not stated....	2209	1238	971	-	-	-

Source: Table 18, "Mortality: All Causes by Age and Sex, Number and Rate/100,000 Population, Philippines, 1972," Disease Intelligence Center, Department of Health, Philippines Health Statistics, 1972, Manila, p. 153.

APPENDIX E

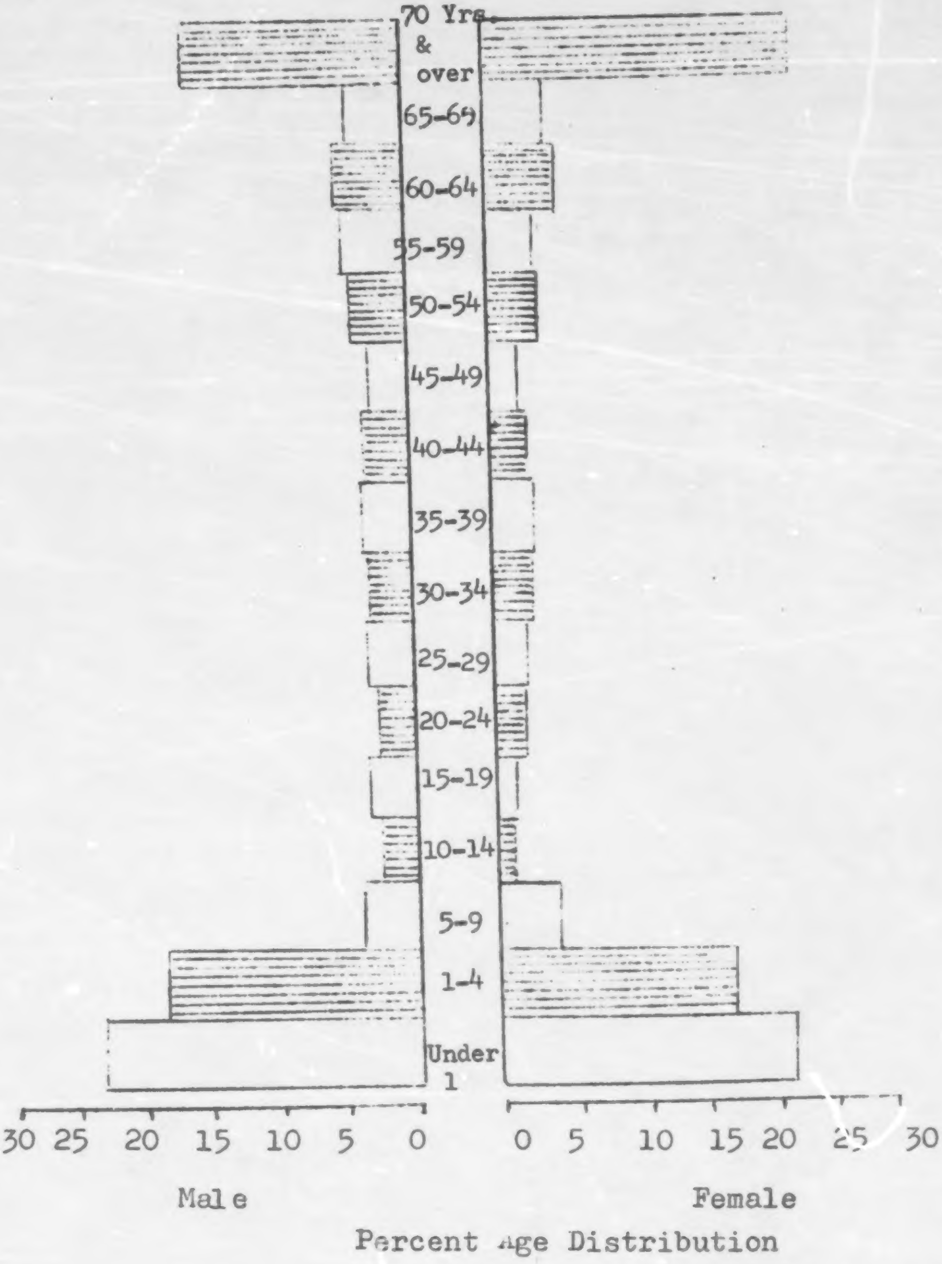
MORTALITY: ALL CAUSES, BY AGE AND SEX (PHILIPPINES, 1973)

A G E	Number of Deaths		
	Both Sexes	Male	Female
All ages	283,475	158,611	124,864
Under 1 year	67,885	39,407	28,478
1-4 yrs.	50,312	26,749	23,563
5-9 yrs.	11,652	6,468	5,184
10-14 yrs.	5,107	2,962	2,145
15-19 yrs.	5,539	3,305	2,234
20-24 yrs.	6,864	4,249	2,615
25-29 yrs.	6,371	3,803	2,568
30-34 yrs.	7,017	4,098	2,919
35-39 yrs.	7,996	4,692	3,304
40-44 yrs.	8,038	4,780	3,258
45-49 yrs.	8,687	5,311	3,376
50-54 yrs.	9,357	5,588	3,769
55-59 yrs.	9,832	6,002	3,830
60-64 yrs.	12,618	7,301	5,317
65-69 yrs.	11,588	6,539	5,049
70-74 yrs.	14,389	1,105	6,284
75-79 yrs.	7,840	4,132	3,708
80 yrs. and over	29,382	13,377	16,005
not stated	2,915	1,653	1,262

Source: Vital Statistics Report 1973, NEDA - NCSO, Manila.

APPENDIX F

MORTALITY: ALL CAUSES, BY AGE & SEX
(PERCENT DISTRIBUTION)
PHILIPPINES
1972



SOURCE: Figure 12, "Mortality: All Causes by Age & Sex, (Present Distribution), Philippines, 1972, Disease Intelligence Center, Department of Health, Philippines Health Statistics, 1972, Manila, p. 154.

APPENDIX G

POPULATION, NUMBER OF BIRTHS, DEATHS, BIRTH RATE, DEATH RATE OF PROVINCES IN REGIONS IX AND XII (1970-1975)

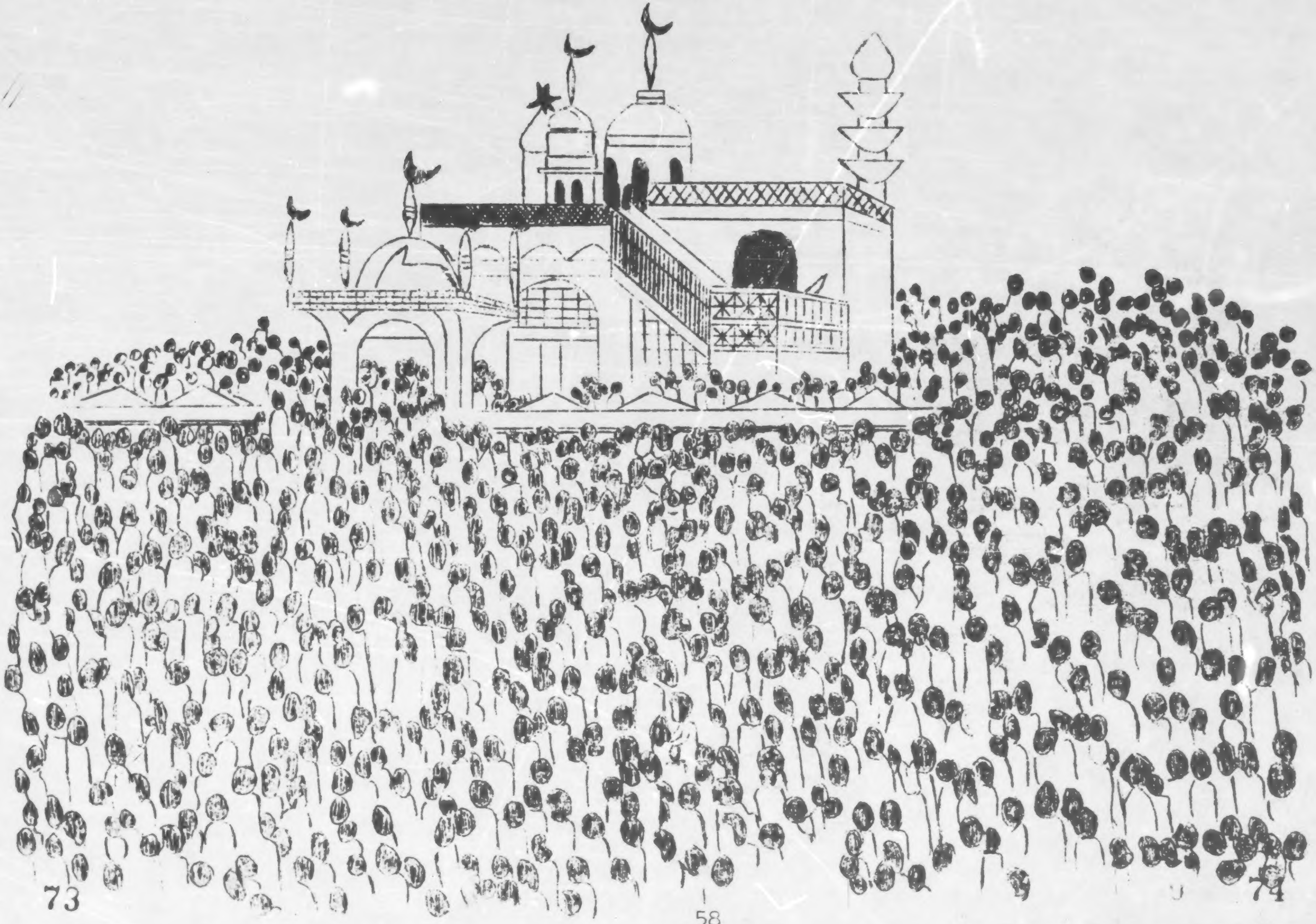
Province/ Year	Population in Thousands	Number of Births	Number of Deaths	Birth Rate	Death Rate
SULU 1970	426	1,561	171	3.7	0.4
1971	442	1,504	220	3.4	0.5
1972	456	1,984	246	4.4	0.5
1973	471	989	225	2.1	0.5
1974	487	486	342	1.0	0.7
TAWI-TAWI 1970	-	-	-	-	-
1971	-	-	-	-	-
1972	-	-	-	-	-
1973	-	-	-	-	-
1974	130	264	28	2.0	0.2
ZAMBOANGA DEL NOTE					
1970	409	7,095	2,013	17.3	4.9
1971	426	6,927	1,828	16.3	4.3
1972	441	7,054	2,195	16.0	5.0
1973	455	8,795	2,409	19.3	5.3
1974	473	10,648	2,398	22.5	5.1
ZAMBOANGA DEL SUR 1970	1,034	15,552	4,571	15.0	4.4
1971	1,073	15,553	4,387	14.5	4.1
1972	1,108	12,317	4,971	11.1	4.5
1973	1,143	14,777	5,362	12.3	4.7
1974	1,182	18,381	5,268	15.6	4.5
BASILAN 1970	143,829	-	-	-	-
1971	-	-	-	-	-
1972	-	-	-	-	-
1973	-	-	-	-	-
1974	-	-	-	-	-
1975	171,027	-	407	-	0.14
LANAO DEL NORTE 1970	350	9.454	1,659	27.0	4.7
1971	362	8,025	1,506	22.2	4.2
1972	373	7,895	1,559	21.3	4.2
1973	385	8,210	1,394	21.3	3.6
1974	397	10,025	2,277	25.3	5.7
1975	381,234	-	-	-	-
LANAO DEL SUR 1970	456	1,154	202	2.5	0.4
1971	465	877	173	1.9	0.4
1972	473	845	168	1.8	0.4
1973	481	743	42	1.5	0.1
1974	490	901	195	1.8	0.4
1975	499,882	-	-	-	-

MAGUIN- DANAO	1970	474,338	-	-	-	-
	1971	-	-	-	-	-
	1972	-	-	-	-	-
	1973	541	-	-	-	-
	1974	564	3,252	590	5.8	1.0
	1975	478,119	-	-	-	-
SULTAN KUDARAT	1970	-	-	-	-	-
	1971	-	-	-	-	-
	1972	-	-	-	-	-
	1973	-	-	-	-	-
	1974	230	4,110	744	17.9	3.2
	1975	266,670	-	-	-	-
NORTH COTABATO	1970	468,354	-	-	-	-
	1971	-	-	-	-	-
	1972	-	-	2,703	-	0.95
	1973	-	-	5,208	-	1.85
	1974	1,975	8,667	-	-	0.70
	1975	472,302	-	-	-	-

Source: Philippine Yearbook, 1977, NEDA-NCSO, Manila.

APPENDIX H

Feast of the Hariraya (Hariraya Puasa)



VOCABULARY WORDS

Pilipino	English	Maguindanao	Maranao	Samal	Tausog	Yakan
Bilis ng pagkamatay	Death rate	Kaupis o kapatay	Kapukusilang o manosiya	Heka matay	Timauod miyatay	lakkes pagkamateyin
Mataas na bilis ng pagkamatay	High Death Rate	Kadakel a minatay	Karipus o kopukusilang o manosiya	Heka tuongan matay	Matauod miyatay	langkew lakkes pagkamateyin
Kalakaran ng bilis ng pagkamatay	Trend of Death Rate	Kadakul o minatay		Sung haika tuongan matay	Tumatauod miyatay	lakeyen lakkes pagkamateyin
Pagbabagong kalagayan ng pagkamatay	Mortality Transition	Pagkasla supagpatay		Sung haika tuongan	Timauod in pagkamatay	pagganti kalabeyan pagkamateyin
Bilis ng pag-aanak	Birth rate	Kagagan no kambata	Kadakul o dili minbawata	Heka anganak	Timauod in pag-anak	lakkes pagpanganakin
Natural na paglaki	Natural Increase	Kahanda so kapa'gkasla	Sa Kapuku o omaini	Pahika anganak	Matuod in imanak	Paslod Paghekkahin
Bilis ng natural na paglaki	Rate of Natural Increase	Kapag kadakel o kahanda mo kapeg kasla	Sa karipus o kapuku omani ko kadakul o tao	Sung pahika anganak	Timauod in Pag-anak	Hekahon Pag-anak
Pagbabagong kalagayan ng populasyon	Demographic Transition	Kapegbago ba nu kapaginagel		Magsasungkeka anak	Matatauod in mahahjanah	kalabeyan madlain o me ka-aahin o pagganti kahantangan

Pilipino	English	Maguindanao	Maranao	Samal	Tausog	Yakan
Tiyak na bilis ng pagkamatay ayon sa edad at kasarian	Age-Sex Specific Death Rate	Na pangegit o kapatay no umol		Umol manusiyah	Pagganta	Umul aa
Talahanayan	Table	Itungan	Pagganta	Itungan	Listaan	Itungan, pagganta
Grap.	Graph	Tindeg	grap	Pagbista	Pagbista	Pagbista

A POPULATION EDUCATION UNIT IN HEALTH EDUCATION

Third Year - Fecundity, Fertility, and Sterility

Suggested Time Allotment: 9-10 class periods

OVERVIEW

One the of variables affecting population changes is fertility. In developing countries, like the Philippines, the cause of rapid population growth is a steadily high fertility or birth rate coupled by a rapid decline in mortality rate. Mortality will continue at its low level with furthr development in preventive medicine and technology. Change in fertility behavior is precisely the target of the national family planning program of our country. However, in order to effect changes in the fertility behavior of people, there is a need to understand the biological determinants of fertility. Equally important is the need to understand the psycho-social factors including values and beliefs that motivate people to behave as they do in relation to fertility and family size. Since population education is part of the preparation of young people for the future, this unit "Fecundity, Fertility, and Sterility" is included in the Health Education section of the YDT (Youth Development Training) Guide for Third Year High School.

The unit consists of four lessons and may take 9-10 class periods. This time allotment is provided for in the aforementioned guide. Health Education is scheduled for one class period a week in the high school. In the light of this situation, it is suggested that the teacher plan out, where feasible, a schedule to teach this unit continuously for 9 to 10 class periods, or for two weeks consecutively. Afterwards, he can make up for the periods missed in the other subject area components of YDT. This suggestion is given in order that the students may gain the most from the unit through continuous daily teaching schedule.

The topics included in this unit are the biological determinants of fertility, reasons and motivations for wanting children, and values and beliefs on family size. Likewise, the causes and remedies of sterility is treated in this unit.

Initially, the unit starts with a survey of the fertility behavior of the mothers of students in the class. This survey introduce the students to the terms fecundity, fertility, and sterility. The methodology of the survey, including data organization and interpretation, are given in detail in order to be of maximum help to the teacher.

In the lesson on the socio-psychological determinants of fertility, the students are led to inquire into the validity of the motivations or reasons for having or wanting children and the Filipino values and beliefs about family size. The inquiry process seems to be the most appropriate method to use in this lesson as it gives the students an opportunity to examine their views on the matter and to evaluate the ground for their stand. In this regard, it is important for the teacher to be objective and open-minded.

The lesson on sterility, its causes and remedies, needs the expertise of a medical person. The rural health physician or a private medical practitioner, preferrably one with specialty in obstetrics and gynecology in the community may very well be invited to give a lecture on the topic.

Most of the materials needed for this unit are included either in the Background Information for Teachers (BIT) or in the Appendices. Included also are the Muslim beliefs and practices related to fertility plus vocabulary words translated in the different Muslim dialects.

The real value of the lessons in the unit can be measured only in terms of the "desirable" fertility behavior relevant to the population situation the students will find themselves in when the time for them to make a decision comes. For the usual evaluation, a sample essay type of test is provided.

I. OBJECTIVES

A. General

Develop knowledge and understanding of the determinants of fertility and how these affect fertility behavior.

B. Specific

1. Define the following terms: fertility, sterility, completed family size, ovulation, pregnancy wastage, abortion, miscarriage, stillbirths, fertilization, and sterilization.
2. Explain the biological factors affecting fertility.
3. Relate how these factors affect fertility behavior and family size.
4. Analyze and evaluate the social-psychological factors affecting fertility.
5. Formulate the conclusion that certain biological and socio-psychological factors affect fertility behavior and family size.
6. Develop the ability to gather data and information through surveys, interviews, and listening to lectures.

II. CONTENT

A. In terms of a concept

Biological and socio-psychological factors influence fertility behavior and family size.

B. In terms of related ideas

1. Biological factors such as heredity, health, age, ovulation cycle, lactation and interval between pregnancies, sex drive, and pregnancy wastage influence fertility or actual birth performance and, consequently, family size.

2. Socio-psychological factors influence values and attitudes toward fertility behavior and family size.

C. In terms of topics

1. Biological Determinants of Fertility and Fecundity
2. Socio-Psychological Determinants of Fertility
3. Sterility

   a. Nine Biological Prerequisites for Achieving Parenthood in the Usual Way
   b. Causes of Sterility
   c. Remedies for Sterility

III. SUGGESTED ACTIVITIES

Lesson 1
(2-3 class periods)

A. Specific Objectives

1. Conduct a survey to get the following information: present age of your mother, number of children ever born to your mother, number of living children, number of abortion and miscarriages, number of stillbirths.

2. Organize and interpret data gathered from the survey.

B. Subject Matter

Survey on Fertility of Mothers of Students

C. Materials

Pictures (See illustrations at the end of the unit.)
Questionnaire

D. Suggested Procedure

Opener

Conduct a brainstorming session on this question: "Why do couples marry?" Encourage students to express their ideas and opinions on the matter. Since there are no wrong answers to this question, it should be easy for them to reveal their opinions on the question at hand.

One of the expected answers might be: "to have children." If this answer is not given, elicit further response until the desired one comes up.

Say: Is it true that one of the motivations for marriage is to have children? Do all married couples have children?

Development

Present the following pictures:

A couple with seven children
A couple with three children
A couple without children

Ask students to describe each of the pictures. Lead them to note the differences in family sizes shown in the pictures. Then ask:

> Is there a possibility that the family sizes depicted in the pictures may increase some more? Why? Why not?
>
> Will this couple (point to the picture of a couple without children) have children?

These questions will bring out the students' present knowledge about fertility and sterility.

At this point, lead the discussion to the students' own families, thus shifting the focus of interest from the impersonal to the personal.

Say: Do you think your parents knew they were going to have children when they got married? Would you like to know the number of children most families have in this class? Would you like to know further whether there is a possibility that some of your families may increase some more? How shall we go about answering our questions?

Lead the class to agree to conduct a survey of each student's family to get information on the following: present age of your mother, number of children ever born to your mother, number of living children, number of abortions and miscarriages, and number of stillbirths. Discuss the items on Table I below, and the information the students will get from it.

After the survey, divide the class into four working groups. Each group will meet outside of the class to compile data gathered by the members. During the next meeting, the group leaders will report the data gathered and compiled to the class.

Assist the students in understanding the following terms used in the survey: abortion, stillbirth, miscarriage.

See Glossary for a listing of vocabulary words.

Say: Last week, the class was divided into four groups, and each group gathered data from your own families with Table I as guide. Each group met outside of the classroom and collated the data gathered. Today, each group leader or a member of the group will write the summary of the data gathered on Table I which is written on the chalkboard.

Group	No. of Mothers Interviewed (1)	No. of Mothers		No. of Children Born (4)	No. of Children Living (5)	No. of Abortion/ Miscarriages (6)	No. of Stillbirths (7)
		Below 45 (2)	45 yrs. up (3)				
Group I							
Group II							
Group III							
Group IV							
Total							

Directions for using the table:

(1) Total for column 1 is the number of mothers interviewed.
(2) Total for column 2 is the number of mothers whose ages are 45 years and below.
(3) Total for colum 3 is the number of mothers whose ages are 45 years and above.
(4) To get the total for columns 4,5,6, and 7, add the numbers in the corresponding columns.

Following the above directions, find the total for each column.

After the groups have written the data and the totals for each column, the following questions may assist the students in the interpretation of the data. Let students go over the questions.

1. What is the average number of children ever born to the mothers of the students?

2. What is the percentage of pregnancy wastage?

3. What is the average family size of the students' families? Is it large or small?

4. What percentage of the mothers is below 45 years of age? 45 years and above?

5. What is the significance of these findings?

Encourage the students to give opinions as to what is a "large" family size and a "small" family size.

Give the formulas below to help the students. Each group may choose which of the questions above it will solve. The average number and the percentage frequency are suggested for the treatment of the data, as these seem to be the most simple approach that can be handled by the third-year students.

$$\text{Average Children Ever Born} = \frac{\text{Total No. of Children}}{\text{Total No. of Mothers Reported}}$$

$$\text{Percentage of Mothers Who Had Abortions and Miscarriages} = \frac{\text{No. of Mothers Who Had Abortions and Miscarriages}}{\text{Total No. of Mothers Reported}} \times 100$$

$$\text{Percentage of Mothers Who Had Stillbirths} = \frac{\text{No. of Mothers Who Had Stillbirths}}{\text{Total No. of Mothers Reported}} \times 100$$

$$\text{Average Actual Family Size} = \frac{\text{Total No. of Living Children}}{\text{Total No. of Mothers Reported}}$$

$$\text{Percentage of Mothers Below 45 years} = \frac{\text{No. of Mothers Below 45 Years}}{\text{Total No. of Mothers Reported}} \times 100$$

$$\text{Percentage of Mothers 45 Years and Above} = \frac{\text{No. of Mothers 45 Years and Above}}{\text{Total No. of Mothers Reported}} \times 100$$

Lead the students to draw conclusions from the findings. The following are examples of conclusions they may arrive at:

1. The average number of children born to our mothers is large. This suggests that, generally, the mothers of the students in this class are fertile.

2. A few mothers have had abortions and stillbirths. Or, the number of abortions and stillbirths among the mothers is low or high.

3. The average family size of families we come from is large.

4. In general, our mothers are below 45 years old and, therefore, may still bear children.

For further understanding of the terms fecundity, fertility, and completed family size, have them answer these questions:

1. When your mother and father got married, di they expect or hope to have children? Do you expect or hope to have children when you marry? What is the basis of this expectation? (Students consider the reproductive capacity of human beings as the basis for the expectation of having children. The technical term is fecundity or the physiological ability to reproduce.)

2. Since your mother gave birth to you and your brothers and sisters, how would you describe your parents in relation to the reproductive potential? From the findings of the survey we made in our class, how many parents were fertile? How does fertility differ from fecundity? (Through this hierarchy of questions, students are helped to understand that fecundity is the reproductive potential while fertility refers to the actual birth performance as measured by the number of offsprings.)

3. If a mother were still within the reproductive period, i.e., 15-45 years, how would this affect a couple's family size? Would it still increase? Why? How would you describe the family size of a couple where the mother has passed the reproductive period, 45 years and beyond? Would her family still increase or not? Why?

This set of questions may assist students to evolve the concept of completed family size, thus: "A completed family size is the number of children that a woman will have produced at the end of her child-bearing years which is between 15 and 45 years."

4. When can you say that a family size has been completed or not?

5. How many families in our survey have completed family size? How many have not?

6. How do you describe a couple who, owing to some causes, can not or could not have children?

Assignment

1. Review the meanings of the following terms:

   a. abortion
   b. miscarriage
   c. stillbirth
   d. fecundity
   e. fertility
   f. sterility

2. Find the meanings of the following:

   a. fertilization
   b. ovulation
   c. pregnancy

3. Read the article on "The General Determinants of Fertility".

How do they affect pregnancy?

The lesson for the following day is based on the article assigned. See BIT, p. 43.

Lesson 2
(2 class periods)

A. Specific Objectives

1. Enumerate the different factors affecting fertility.
2. Relate how these factors affect fertility behavior.
3. Explain the effects of these factors on family size.

B. Subject Matter

Factors Affecting Fertility or Pregnancy

C. Materials

Article on "The General Determinants of Fertility", (BIT, p. 43).

D. Suggested Procedure

Opener

Recall the findings of the survey and relevant learnings by asking these questions:

1. What is the largest number of children in the families you surveyed? The smallest?

2. What is the average family size of the families?

3. What percent of the students' families may still increase?

4. What is the term used to refer to a person's reproductive potential?

5. When can we say that a couple is fertile?

Development

Conduct a class discussion on the factors affecting fertility. As students consider the various determinants, lead the discussion in such a way that they are made to view the relation of these determinants to fertility behavior and family size.

Follow the above discussion with a simulated radio or T.V. quiz. Have a number of students or the whole class with a quizz master, who is also a student, simulate a T.V. or radio on the air.

Have the following situations written on small sheets of paper. Roll and place them in a jar or in a box. Let each student pick a roll from this box. Contestants are instructed by the quiz master to relate situations to the concepts of fecundity, fertility, sterility, and completed family size.

1. A girl gets married at the age of 16.
2. Mrs. Kiram, 34, has four children.
3. Mr. and Mrs. Kasim have 2 pairs of twins.
4. Mrs. Abdulla, 50, has 1 child.
5. Mrs. Jainal, 20, is newly married.
6. Mr. and Mrs. Rasul have been married for 8 years, but have no children.
7. Mrs. Rahim married at the age of 46.
8. Mr. and Mrs. Muhammad, both in their late 40's, have three children who are all boys.
9. Both Mrs. Ganih and Mrs. Abidin have been married for 10 years. Mrs. Ganih has 3 children; Mrs. Abidin has none.
10. Mr. and Mrs. Talib, 27 and 24 years old, respectively, have four children who are all girls.

Assignment

1. Gather songs, poems, dances, anecdotes, aphorisms, jokes, sayings, etc. from the community which reflect values and beliefs about fertility and family size by interviewing your parents and other adults in your community.

2. Interview the same people on the motivations or reasons for wanting to have children.

3. Read reference materials on the population situation in the country.

4. Collect newspaper or magazine articles on the population situation.

Lesson 3
(1-2 class periods)

A. Specific Objectives

1. Identify and explain how each of these factors influence individual decision-making with regard to family size.

   - a. Economic needs
   - b. Social reasons
   - c. Psychological motivations
   - d. Religious beliefs

2. Explain why, in the past, high levels of fertility were socially acceptable and considered necessary for the well-being of the individual and society.

3. Analyze and evaluate the various reasons for having or wanting children.

B. Subject Matter

Socio-Psychological Determinants of Fertility

Values and Beliefs About Family Size

C. Materials

Songs, poems, riddles, beliefs, etc. about family size gathered by students through interviews (See Appendix E, p. 83.)

Values regarding children gathered through interviews.

"Motivations for Childbearing," BIT, pp. 83-86.

D. Suggested Procedure

Opener

Have the class sing this song:

SANTA CLARA	SAINT CLAIRE (English translation)
Santa Clarang pinung-pino	Saint Claire so demure
San Pascual sa Obando,	St. Paschal of Obando
Kami po ay bigyan ninyo	Please give us now
Ng anak na labimpito.	Seventeen children.
Abaruray, Abarinding)twice	Abaruray, Abarinding
Pangako'y tutuparin.)	Your promise please fulfill
	Abaruray, Abarinding
	Your promise please fulfill.

Development

Have the students analyze the song in relation to the value it suggests on fertility.

Ask:

What is the value placed on fertility as implied in the song?

Do you think that couples today still hold this value?

Ask the students to report, by groups, on the songs, dances, poems, anecdotes, aphorisms, jokes, sayings, etc. they have gathered from the community which reflect values and beliefs about fertility and family size. Lead them to analyze the implied values about fertility and family size and the reasons why such values are held by the community.

Examples:

Proverbs

1. Kayamanan ng mahirap ang maraming anak.
   (The wealth of the poor lies in their having many children.)
2. Kung maiksi ang kumot, matutong mamaluktot.
   (If the blanket is small, learn to bend.)
3. Ang kasiya sa isa ay kasiya rin sa dalawa.
   (What is enough for one is enough for two.)

Songs

Andi, Bali, Rosing (Pangasinan)	(English Translation)
Andi, bali, Rosing Andi, bali, Rosing No pitora labat.	Never mind, Rosing Never mind, Rosing If we will have seven.
No nanunutan kon bii lamet Agak makapangan, makaogip	When I think of our having a girl again, I can't eat Neither can I sleep.
Say laki met Ramon So ontombok ed saya Andi, bali, Rosing Maupikad tad Dios Ya laki met laya.	If only we would have a boy. Just this once. Never mind, Rosing Let us pray to God That he will give us a boy this time.

Beliefs

1. If a baby crawls on fours and looks between his legs, he is asking for a sibling.
2. It is good luck to have three children of the same sex in a row followed by another child of the opposite sex.

Have the class report, by groups, the results of their interviews with parents and elders on the values regarding children. As each group reports, assign a student or group rapporteur to write these on the chalkboard. Then, lead them to classify the list, as follows:

1. Economic needs for children: needed on the farm; to depend on for care in old age; to augment income by working;etc.
2. Social reasons: pressure from family and friends; to perpetuate the family name; "a large family is powerful in influencing community decisions"
3. Psychological reasons: a proof of virility or manliness; bearing children fulfills a woman; luck (three children of the same sex followed by a child of the opposite sex brings luck to the family); enjoyment and satisfaction from children, etc.
4. Religious reasons: the Biblical injunction of "Go ye and multiply......" (See appendix D, p. 81).

Arrange for group discussions on the various reasons for having or wanting children. Groups may be assigned to discuss one classification of reasons each in order to save time. In this group discussion, guide the students to analyze and evaluate the reasons in the light of:

1. the present population situation.
2. changes in social values.
3. changes in parental aspirations and goals for their children and opportunities to achieve these.
4. range of activities that may be engaged in by men and women at the present times.
5. government policies on population.
6. availability of services to help couples plan their families.

Assignment

1. Review the fertilization process.
2. Define sterility.
3. Discuss the different causes of sterility and their remedies.

Lesson 4
(2-3 class periods)

A. Specific Objectives

1. Explain, with the aid of a diagram, the fertilization process.
2. Enumerate and analyze the nine biological pre-requisites for achieving parenthood in the usual way.
3. Conclude that there are biological pre-requisites for achieving parenthood in the usualy way.
4. Relate fertility to sterility.
5. Discuss the different causes and remedies of sterility in the male and in the female.

B. Subject Matter

Fertilization

Biological Pre-requisites for Achieving Parenthood in the Usual Way

Causes of Sterility

Remedies for Sterility

C. Materials

Appendix A - Fertilization, p. 75.

Appendix B - Diagram of the Fertilization Process, p. 76.

Appendix C - "Sterility and Infertility", p. 77.

D. Suggested Procedure

Opener

By way of interview, have a student give an illustrated talk on the fertilization process, using a diagram.

Development

From this illustrated talk, lead the students to identify and explain the nine biological pre-requisites for achieving parenthood in the usual way. Have illustrations of the male and female reproductive system posted in the room so that students can get clues from these.

Using the same diagram on the fertilization process and the previous discussion, lead the students to identify the causes of sterility. Have them list their answers and verify these by citing authoritative sources or authorities.

Have students listen to a physician, preferably a gynecologist, who has been previously invited, to give a lecture on "The Causes and Remedies of Sterility."

Follow up the lecture with an open forum to give students a chance to ask questions and clarify their doubts.

If the physician can not come to the class, have a group of students interview him at his clinic. Let the group report the results of the interview.

IV. EVALUATION

A. Essay

Directions: Assign students to write a short essay or composition on any one of the following topics:

1. Certain Values About Family Size Need Re-Thinking
2. Family Size - A Matter of Choice, Not of Chance
3. Pregnancy - Need for Control?
4. Local Beliefs Related to Fertility
5. Local Practices Related to Pregnancy

B. Matching Type

Directions: Column B contains the explanations for words in Column A. Match them by writing the letter of the words described on the spaces provided

Column A

a. Fertilization
b. Fecundity
c. Ovulation
d. Fertility
e. Miscarriage
f. Sterility
g. Completed family size
h. Abortion

Column B

___1. the release of the egg from the ovary
___2. the union of sperm and egg
___3. the condition of a couple who cannot have children
___4. the capacity to give birth
___5. the act of giving birth before before a full term
___6. the act of removing the fetus from the womb before its full term

APPENDIX A

Fertilization

Each month one of the egg cells ripens and bursts out of the ovary, a process termed ovulation. The sperm cells are produced in the testes. After their production in the testes, the sperm must pass through the penis and into the female vagina to fertilize the ovum. The sharing together in bringing about a new life requires special timing. The short life span of the egg cell, 12 to 48 hours, limits the time period during each month in which a sperm and an egg can unite. This time period lasts about two days each month.

The chance of the sperm and an egg joining together is greatly increased by the fact that the father produces millions of sperms when only one is needed. When the semen is released, millions of sperms swim up the vagina through the uterus and into the fallopian tube, but only a few reach the egg. When a sperm reaches the egg, it becomes excited and its tail beats more rapidly. The beating tail gives the sperm more force to push its head into the egg. The sperm cell cannot get into the egg cell by force alone. To help the sperm accomplish this task, there is a special fluid inside the head of the sperm. The sperm releases this substance as it nears the egg. This substance eats away at the covering of the egg cell and allows the sperm to enter. The union of the sperm and egg is still not complete. The important directions for making a new baby are contined in the nucleus of the sperm and the nucleus of the egg. The nucleus of the sperm cell is in its head. The nucleus of the egg cell is in its center. Inside the nucleus of the sperm and the egg are genes. A design for the new baby is laid out when the genes from the sperm are joined by the genes from the egg.

During the first three or four days after this union, the dividing cells drift down the Fallopian tube toward the uterus. Meanwhile, the uterus has been busily preparing a nest for the fertilized egg. The wall of the uterus is now extra thick and is filled with rich nourishing blood. When the group of dividing cells arrive at the uterus on the fourth day, they don't settle into the nest. Instead, they float around in the uterus for about four days. Finally, in need of food and nourishment the group of cells burrow a nest in the uterine wall and settle inside.

Reference:

Burt, John J. and Brower, Linda A. Education for Sexuality-Concepts and Programs for Teaching. Philadelphia: H.B. Saunders, 1970. pp. 314-318.

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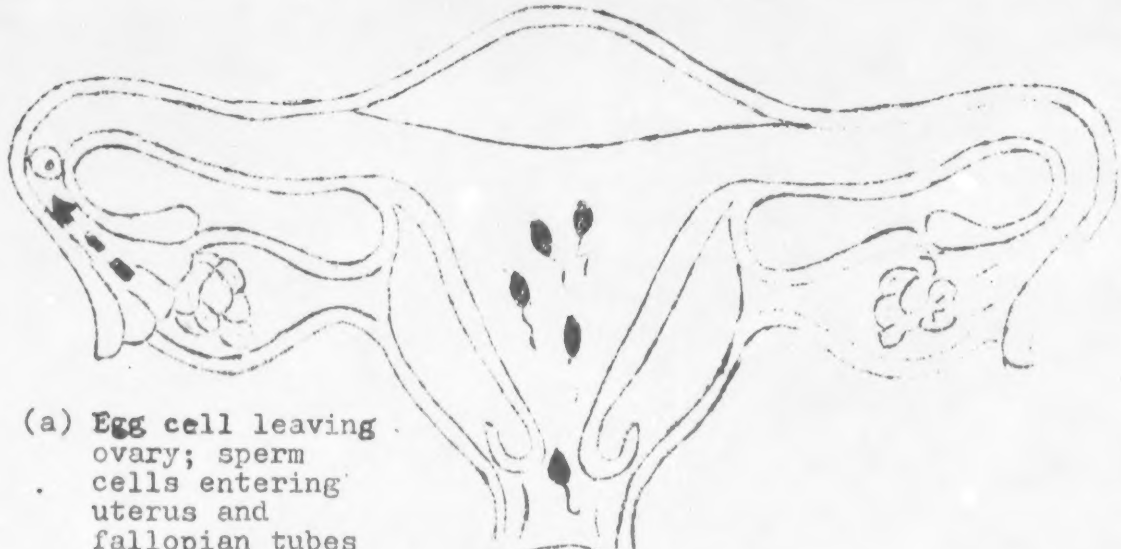
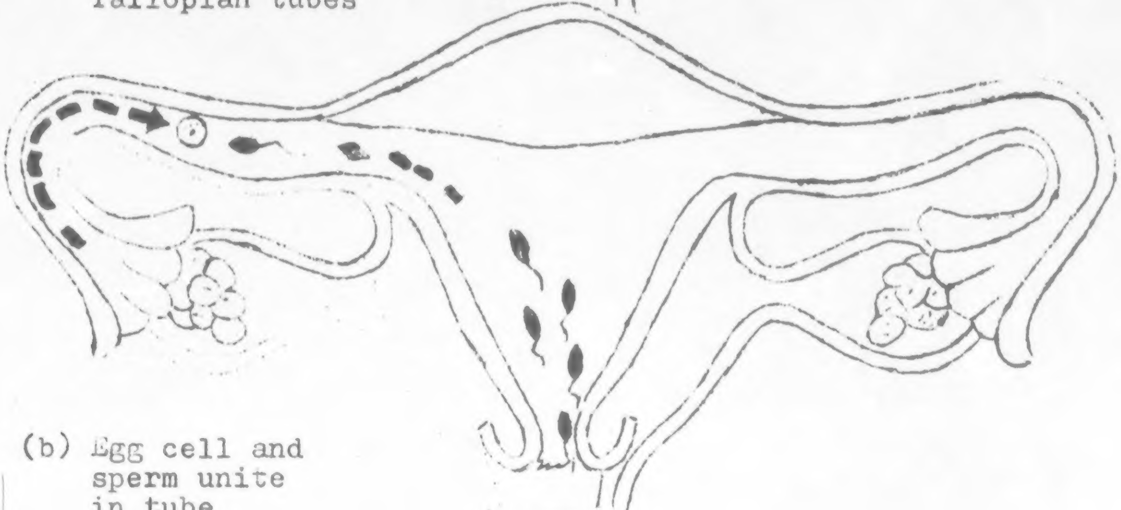
APPENDIX B

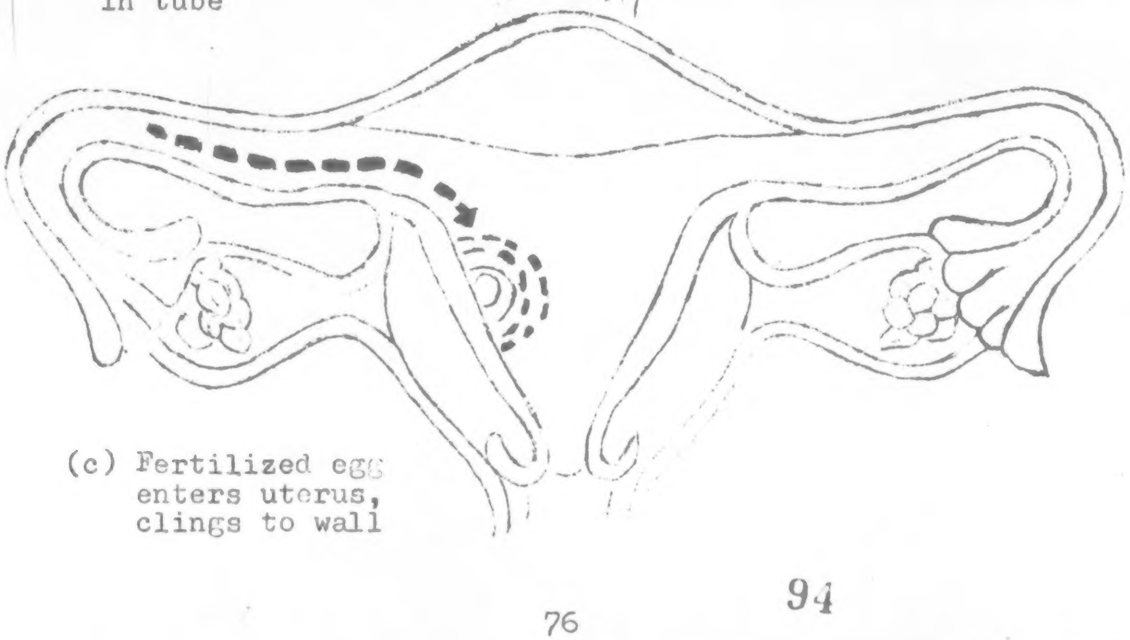
Fertilization Process



(a) **Egg cell** leaving ovary; sperm cells entering uterus and fallopian tubes



(b) Egg cell and sperm unite in tube



(c) Fertilized egg enters uterus, clings to wall

APPENDIX C
Sterility and Infertility

Sterility is a condition when couples cannot reproduce as contrasted from sterilization or surgery which prevents conception or fertilization. However, modern medicine, through drug therapy and timely surgery, is assiting couplesat one time considered permanently sterile to reproduce.

Infertility occurs when the union of sperm and egg fails to take place, when the fertilized egg does not develop properly or when the embryo or fetus is expelled from the womb too incomplete to survive outside its mother's womb. There are at least nine biological prerequisites for achiving parenthood in the usual manner. Four pertain to the male:

1. Production of healthy live sperms in sufficient numbers. Ordinarily a single normal testicle is all that is required, though usually both assume an equal role in producing sperms. In order to function properly, a testicle must be in the scrotal sac. In the male embryo each testicle is formed in the abdomen and descends into the scrotum during the seventh month of intrauterine life. Very infrequently, one or both testicles fail to descend. If they do not come by five or six years of age, the little boy is usually treated with a hormone to stimulate growth of the testicles. If hormone treatment fails, surgery is performed, usually about the eight year of life.

2. Secretion of seminal fluid - the whitish, sticky material that is ejaculated during sexual intercourse - in the proper amounts and composition to transport the sperms.

3. An unobstructed seminal "thruway" or passage from the testicle to the end of the vagina.

4. Ability to achieve and sustain an erection and to ejaculate within the vagina.

The other five biological requirements for reproduction pertain to the female:

1. At least one ovary that functions normally enough to produce a mature egg.

2. A normal-sized uterus, properly prepared by chemicals fed into the bloddstream by the ovary to become the "home" of the developing fetus.

3. An unobstructed genital tract - from the vagina up through the Fallopian tubes to the ovary - enabling the egg to pass down and the sperm cells to pass up.

4. A uterine environment which adequately nourishes and protects the unborn child until it is able to live in the outside world.

5. Safe delivery of the infant.

Infertility may occur in both male and female if any of the nine biological prerequisites, or combination of them, is not met. The emotional aspects of infertility have not yet been well-explored. There are, however, conditions of emotional or psychic origin which obviously can contribute to childlessness. Most cases of impotence in the male and frigidity in the female belong to this group of causes.

Some of the causes of conception failures in the male are:

1. Deficiency of sperm cells - As earlier stated, for conception to take place, the sperm must be healthy and in sufficient numbers. The average male ejaculates 3 millimeters (ml) which contains approximately 360 million sperms. At least a sperm count of 60,000,000/ml. constitutes normal fertility. Fertility values may range from normal to conception unlikely but not impossible (a sperm count of less than 10,000,000/ml. However, men with a sperm count of only a few million per milimeters have impregnated their wives. Also, if more than 25 percent of the sperms are defective, the male is likely to be sterile even if the total count is normal. Sperm cells may also be deficient if they are abnormally sized and shaped, and if semen does not contain them either because testicles do not manufacture them or the sperm cells are blocked in their exit.

2. Too short-lived sperm cells - Sperms should retain their ability to fertilize an egg for 48 to 72 hours after they have been deposited in the woman's body.

3. Insufficient supply of androgens (sex hormones) - This results in poor or inadequate cervical mucous to provide "good swimming" for the sperms.

4. Vasectomy - A surgical procedure where the vas deferens are tied or cut, resulting in sterilization. After undergoing vasectomy, the male continues to produce semen but the fluid contains no sperms.

5. Structure of the vas deferens, where this is not caused by vasectomy, causing obstruction or blocking of the passageway of the sperms.

6. Lack of erection (impotence), preventing ejaculation from taking place. The condition, however, is rare.

7. Failure of the testes to descend, a condition called cryptorchidism. Sperms are most effectively produced when the temperature in the testes is 1.5 to 2.0°C below body temperature. The scrotum provides the mechanism needed to control body temperature. If the testes fail to descend, the body temperature is not favorable for sperm production.

8. Any infection extending to or affecting the testicles. This may reduce or destroy the efficiency of the testicles minimizing or stopping altogether the manufacture of sperm cells.

The common causes of conception failure in the female are:

1. Deficiency or poor quality of the ovum. The ovary may fail to produce a ripe egg.

2. Sricture or clogging of the fallopian tubes. The fertilized egg has to traverse the fallopian tube on its journey to the uterus. For this reason, there should be an unobstructed passageway.

3. Glandular unbalance resulting in inadequate cervical mucus. This mucus provides "good swimming" for the sperms.

4. Mucous -membrane lining of the uterus unfavorable to the fertilized ovum. The uterine wall has to have a favorable environment for the implantation of the fertilized ovum.

5. Salpingectomy - A surgical procedure which consists of tying, cutting or removal of the fallopian tubes, so that the egg can no longer reach the womb. It simply disintegrates and is absorbed into the blood.

Remedies for Sterility

There are three phases in the treatment of infertility. The first phase consists of education of the couple to help them understand the problem. This consists of (1) explaining to the couple how conception occurs and the reasons why it may not occur; (2) helping the couple to understand that failure to conceive is caused by the male as often as the female; (3) assuring the couple that infertility is nobody's fault and that infertility has nothing to do with "manliness" or "womanliness"; and (4) gaining sex knowledge leading to healthier sex attitudes.

The second phase of the infertility treatment consists in detection where the infertility specialist finds out or discovers which of the nine biological requirements for reproduction, or which combination of them, is not being met. He compiles a medical history of both husband and wife - through interviews with each of them and from past medical records. All kinds of things may have importance here. For example, mumps can sometimes cause sterility if the man has suffered a severe case involving his testicles as well as his salivary glands, during or since adolescance. Among women, abdominal surgery sometimes leaves internal sear tissue that creates an obstacle. Some varieties of venereal disease, if not properly and promptly treated, can have the same effect in both men and women. A tuberculosis infection involving the reproductive organs likewise may destroy fertility. The doctor will also want to know if either husband or wife has been married before, and if any children resulted from the previous marriage. He will also seek to learn - usually in separate talks with wife and husband - about the coule's sex knowledge and sex habits.

The therapy phase of the treatment consists in removing whatever obstacles to successful pregnancy the physician may find. The treatment may be surgery, hormone or drug therapy, and X-ray therapy.

Sometimes there may be slight abnormality in the shape or position of the vagina or cervix which prevents conception. A common fault is that the cervix is tipped too far back or too far forward, and its opening is not directly in line with the ejaculation of the semen. When this appears to be preventing conception, the doctor may prescribe certain positions for the husband and the wife to use during intercourse.

References:

John, Edward B., Sulton, Wilfred C.; and Webster, Lloyd E. Health For Effective Living. New York: McGraw-Hill Book Co., 1966. p. 165.

Havemann, Ernest. Birth Control. Life, An International Report. The Netherlands: International Books, 1967, pp. 94-96.

Burt, John J., and Brower, Linda A. Education for Sexuality - Concepts and Programs for Teaching. Philadelphia: W.B. Saunders Company, 1970, p. 17.

Guttmacher, Allan F. Birth Control and Love. London: The MacMillan Company, 1969, pp. 235-246.

APPENDIX D

Religious Beliefs from the Qur'an

"The most gruelling trial is to have plenty of children with no adequate means."[1]

According to the Prophet, "Man's ordeal grows in magnitude as man's progeny grows in number, for he would then be hard put to it to provide them with their wants and means." [2]

"Neither by your riches nor by your children shall you bring yourselves into nearness with us," (Sura 34/37)

"For indeed, it is not ample means or a large progeny which enhances, a Muslim's position in God's sight; he gains in importance and worth before God only if he uses his wealth to promote the general welfare and to ensure that his children, be they many or few are good enough to contribute to the building up of society and to helping it along the path of progress and prosperity." [3]

"O young men, those of you who can support a wife should marry, for marriage keeps you from looking at strange women and preserves you from immorality; but those who cannot should take to fasting, for it is a means of suppressing sexual desire. [4]

"The ability of the person to shoulder the burdens of marriage - financial and otherwise - is in itself a sufficient justification for making marriage obligatory on all fully responsible people."

"But the person, who is proved to be completely unable, financially and otherwise, to shoulder the burdens of marriage, is not only not required to get married but also forbidden, by Muslim Law, to do so." [5]

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[1] Nazer, Isam R., et. al. (editors), Islam and Family Planning, Vol. II (a faithful translation of the Arabic edition of the proceedings of the International Islamic Conference, Rabat, Morocco, Dec. 1971). Lebanon: The International Planned Parenthood Federation, 1974, p. 12.

[2] Loc. cit.

[3] Ibid. p. 100

[4] Ibid. p. 7

[5] Ibid. p. 41

"O our Lord: give us in our wives and offsprings the joy of our eyes, and make us examples to those who fear thee." (Sura 25/74)

The "joy of our eyes" means feelings of peace and trust, with joy and contentment. A person who is worried or restless cannot feel peaceful or secure. Security consists in stability and dependability, as opposed to insecurity and precariousness. A man's offspring are a source of happiness and joy only if they are sound and strong in mind and body, happy in themselves and give out happiness around them, enjoying the good things of this earth and serving as a source of joy to others. 6

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[6] Ibid. p.6

APPENDIX E

BELIEFS AND PRACTICES OF MUSLIM FILIPINOS RELATED TO FERTILITY

I. MARRIAGE

A. Lanao del Sur (Maranao)

1. A prosperous life is in store for couples who marry during a full moon.
2. Bad luck will befall a couple whose relatives stand on the staircase on their wedding day.
3. Rain on a wedding day promises prosperity.

B. Zamboanga del Sur (Tausug)

1. A maiden who dreams of her hand in the kitchen will marry an old man.
2. A maiden who assists a friend in an elopement will, herself, elope.
3. Avoid being the butt of jokes by marrying early.
4. Newly-married couples should not visit the dead for many of their children may die.
5. The wedding dress of a bride should not be seen by her groom before the wedding.
6. Accidents and other misfortune lie close to engaged couples.
7. A future bride should not try on her wedding dress before the wedding because the wedding may not push through.

II. CONCEPTION

A. Lanao del Sur (Maranao)

1. A conceiving woman who eats stolen food will give birth to a future thief.
2. A conceiving woman who eats shrimps and crabs will give birth to one with short hands and one with a bad character.
3. A conceiving woman who eats coconuts will give birth to one with a relatively big head.

B. Zamboanga del Sur (Tausug)

1. During a lunar eclipse, a conceiving woman should bathe herself so that her child will be free of birthmarks.
2. A conceiving woman who yearns for anything black will give birth to one with dark skin.

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C. Maguindanao, Cotabato City, Sultan Kudarat

1. A conceiving woman should not look at anything ugly to avoid having an ugly child.
2. A conceiving woman should have what she wants to avoid

   a. a miscarriage
   b. giving birth to a child prone to colds

III. PREGNANCY

A. Lanao del Sur (Maranao)

1. A pregnant woman must wear amulets to ward off evil spirits.
2. A pregnant woman must hang a needle and a ganta of rice by the doorway to keep away evil spirits from entering her uterus.
3. A pregnant woman should not mend clothes to avoid a difficult delivery.
4. On a full moon, a pregnant woman must comb her hair for ease of delivery as well as to give birth to a beautiful child.

B. Zamboanga del Sur (Tausug)

1. A pregnant woman should not braid her hair for this may mean the death of her child.
2. When a pregnant woman slips, her child will have broken dentures.
3. Pregnancy can be avoided if the woman taps her hips immediately after intercourse.
4. Pregnancy can be avoided if the woman lets her stomach be massaged.

C. Maguindanao, Cotabato City, Sultan Kudarat

1. The strong movement of a fetus promises a strong baby girl.
2. The foetus is male if it shows pronounced movements at the right of the mother's stomach.

IV. BIRTH

A. Lanao del Sur (Maranao)

1. Easy delivery is assured if the expectant couple lets all the doors and windows open three days before the mother's delivery.
2. Woman was created by Allah (God) to give birth and to care for her children.
3. A cry-baby signifies a need for another sibling.

B. Zamboanga del Sur (Tausug)

1. A pregnant woman who eats twin bananas will give birth to twins.
2. Women who love to eat papayas will give birth to male children.
3. A woman about to give birth will have a male child if she expels a white fluid and a female child if she expels blood.
4. A woman who drinks the concoction of the boiled roots of papaya, "malunggay", bark of the anonas, kapok and guavas, will become sterile.

C. Maguindanao, Cotabato City, Sultan Kudarat

1. Women with wide hips are prolific.
2. It is best to have numerous children for they can help increase the family income.
3. Allah does not bless childless couples.

V. CHILDREN

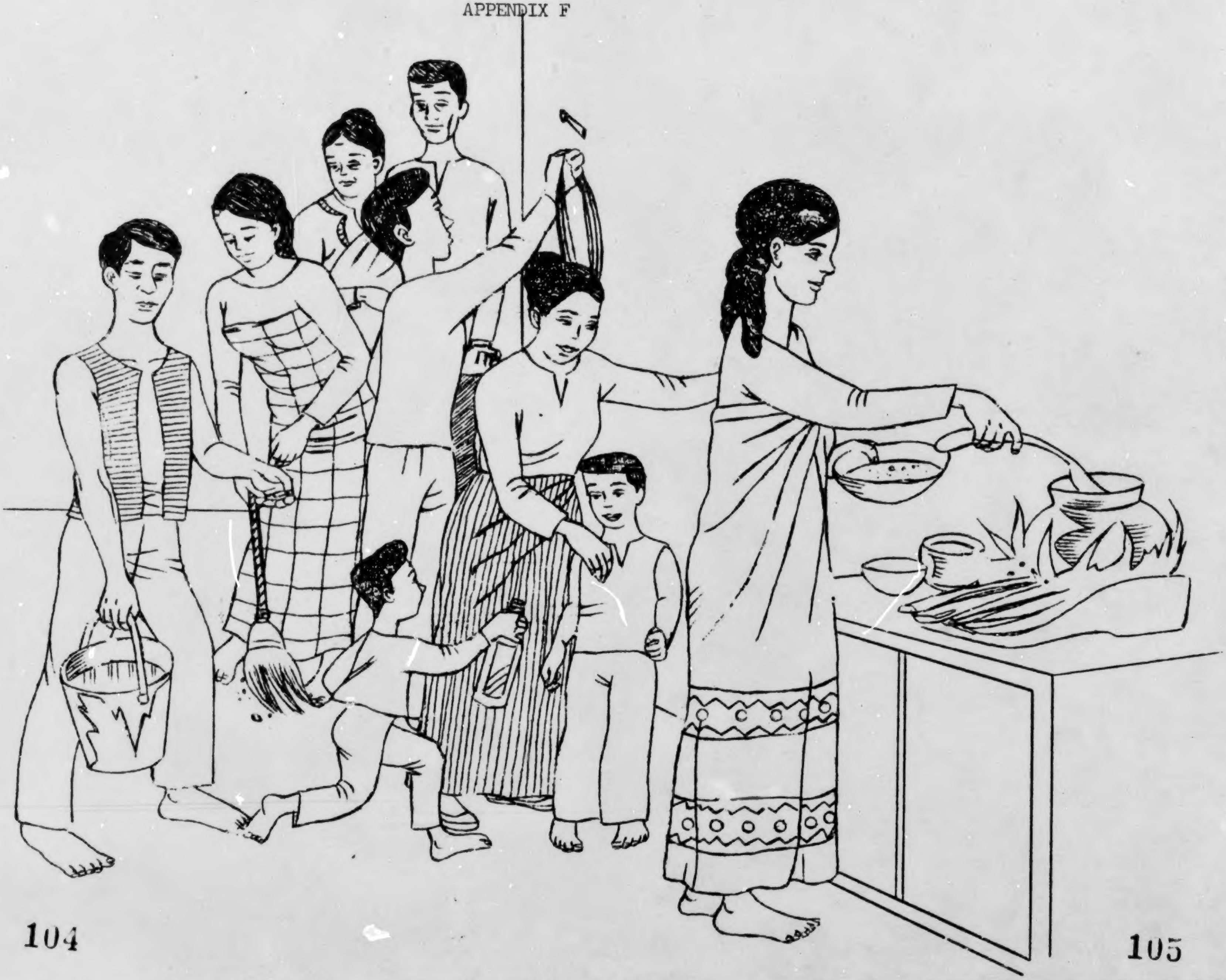
A. Lanao del Sur (Maranao)

1. God (Allah) loves couples with numerous children.
2. God (Allah) will provide for the needs of a large family.

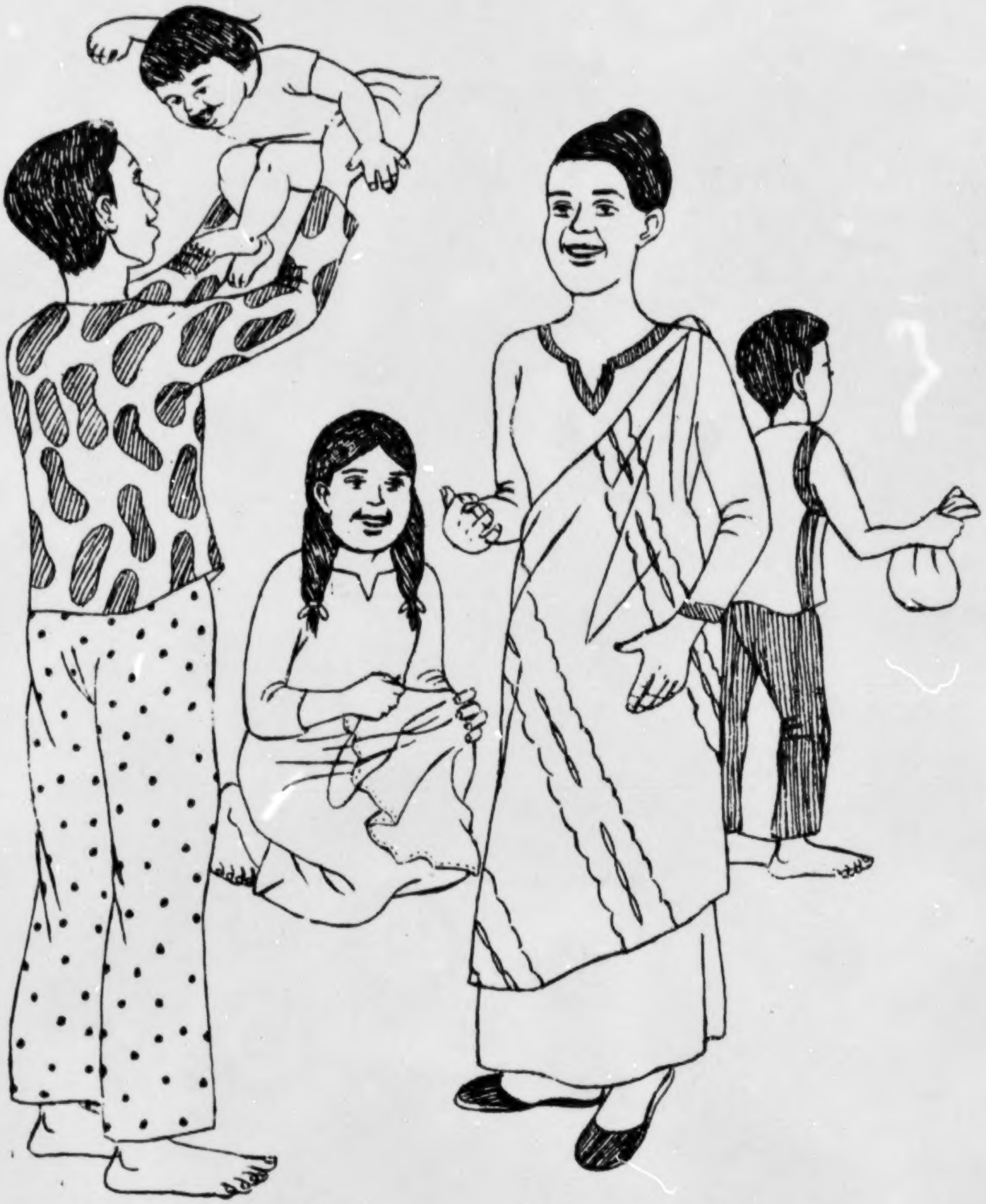
B. Maguindanao, Cotabato City, Sultan Kudarat

1. A big family is a rich family.

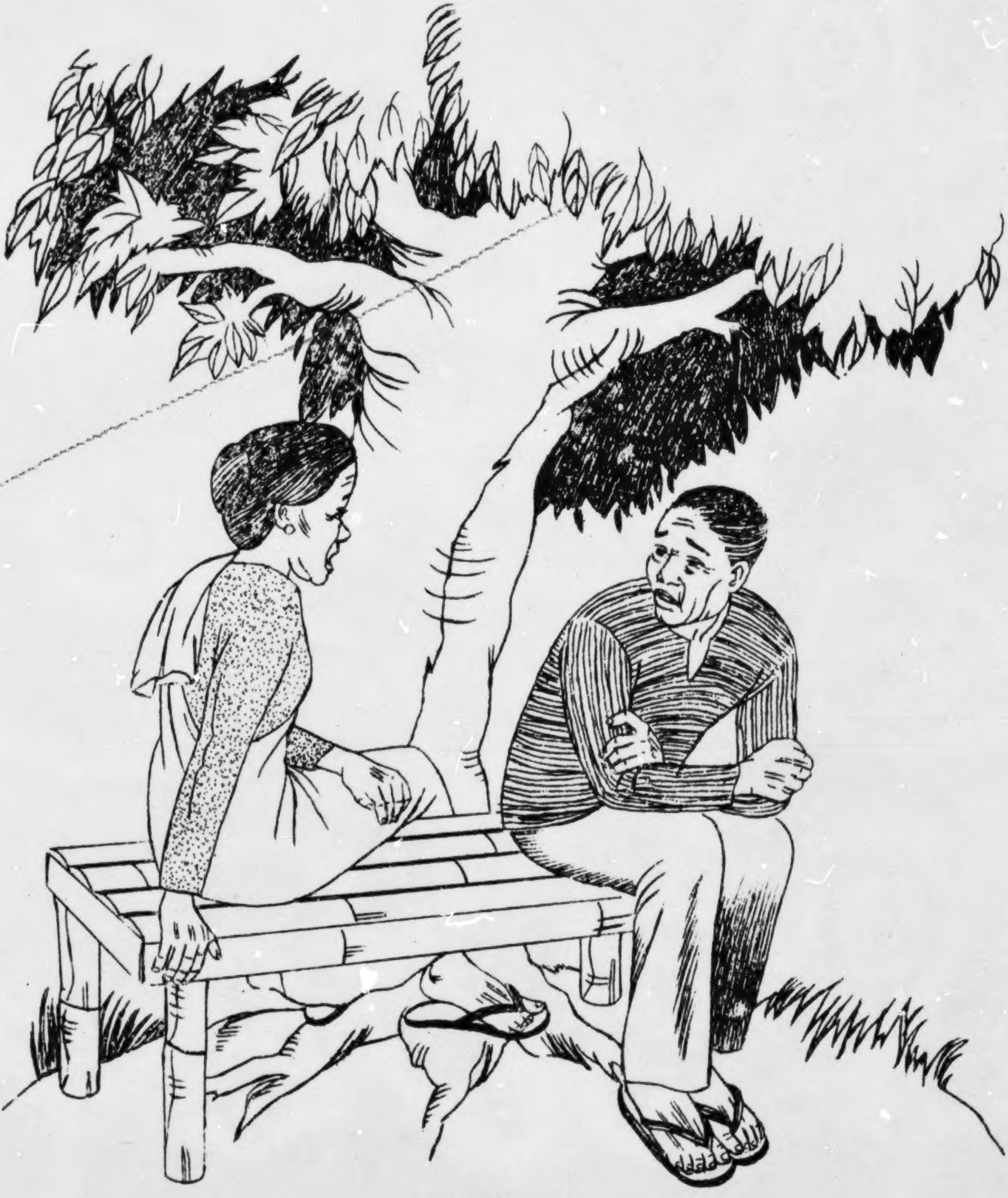
APPENDIX F



APPENDIX G



APPENDIX H



VOCABULARY WORDS

Pilipino	English	Maguindanao	Maranao	Samal	Tausog	Yakan
Pagpapalaglag	Abortion	kabpagawa sa kagingay	kambagwas	paglat8h	pagpakpak	paglabon
Nalaglag o naagas na bata	Aborted child	naludusan	inibagwasi	kalabuan	kiyapakpak-an	kalaboan
Hustong laki ng pamilya	Completed family size	sugatate kasla nu kambabata	madi-angka so kala o pamilya	sarang heka anak	sarang in taud sin anak	sarang heka anak
Paglilihi	Conception	pigkararing	kaogat	niram	birdlay	ngiram
Kakayahang mag-anak	Fecundity	kagaga kano kambata	kagaosen nin sa kambawata	hap leh mag-anak	marayaw in pag-anak	hap pag-anak
Pag-aanak	Fertility	kambabaita	kagaosen nin kambawata	hap heh nga-nak	paganak	pag-anak
Sapunla	Fertilization				marayaw in pag-anak	manjari anak radjarihan pungla
Pamaraang sapunla	Fertilization Process					
Kalamigan sa babae	Frigidity	dipayog o dagananin	da-a kababa-i	mahana niyah gana denda	wai na napsu sin babae	ga niya napsu dendehin
Mga Kadahilanan	General determinants	so tudtulan no kambata	so sabap-o kapakan bawata	pagpahap leh nganak	pagparayaw sin pag-anak	pagpahap pag-anak

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VOCABULARY WORDS

Pilipino	English	Maguindanao	Maranao	Samal	Tausog	Yakan
Di paninigas ng titi ng lalaki	Impotence Infertility	di pedtagasin	di tudo a ki-a tao nen	bantot na	na bantot na	lella bantut
Pag-aagas	Miscarriage	naluludasan	biyagwasan	kalabuan	kiya pakpakan	kalaboan
Obulasyon	Ovulation			hop ma diya laum paganak	dimayaw in laum pag-anak	
Mga kadahilanang sosyolohikal ng pag-aanak	Socio-Psychological determinants of fertility			pagpahap leh ama anak	pagparayaw sin magpaanak	pagpahap pag-anak
Pagbubuntis	Pregnancy	maguingay	maugat	pagbottong	pagburas	pagbetteng
Pag-aanak na patay	Stillbirth	pagbata sa minatay	miarapas	paganak matay	paganak matay	paganak matay

A POPULATION EDUCATION UNIT IN HEALTH EDUCATION

FOURTH YEAR - FAMILY PLANNING

Suggested Time Allotment: 8-9 class periods

OVERVIEW

This unit on family planning is the same unit included in the Citizens Army Training, Unit III of A Teaching Guide for Health Education, pp. 77-98, in the Revised Secondary Education Curriculum. In this Guide, ample time has been provided for the teaching of this unit in the CAT Program.

Students gain scientifically accurate information about family planning from this unit. Since the fourth-year students have already been introduced to the concept of family planning in other subjects, like Social Studies and Home Economics, this unit develops further their knowledge and understanding of family planning as a means of fertility control. The various methods of family planning are discussed with great care. Since contraceptives will loom very large in a discussion of family planning methods and since it is highly probably that majority of the students are Catholics or Muslims, the controversial aspect of the topic cannot be ignored. Therefore, the moral aspect of the use of contraceptives is taken up in this unit. Likewise, the students are helped to understand the health benefits of family planning to the mother, the child, and the family as a whole. The students are also helped to locate family planning services in the community.

There are unfounded fears and anxiety expressed by parents and other adults that teaching the various contraceptive methods to adolescents might lead them to "experimentation" or to promiscuous sexual behavior. Although this statement has not been proven true by research, it would still do well to stress responsible sexual behavior in relation to family planning. The students should be made to realize that a knowledge of family planning does not give them sexual license; that the ultimate goal of family planning is a highly moral one, that is, the enhancement of the good life for the family and the nation. With this in mind, the series of lessons in this sub-unit should be viewed as a preparation for the future of the students.

Lesson 1 of the unit opens with a survey of students' attitudes toward family size. The assumption is that students may want a family size different from what their parents had. The students, having developed their attitudes towards family size, are confronted with the question: "How can you have the family size that you wish to have?

The first lesson serves as a springobard for the succeeding lessons on family planning. It will be noted that the lessons shift from the micro level, family planning as it relate to the individual family and community situation, to the macro level, family planning as its related to the population situation in the country. The shift is intended to enable the students to view family planning not only as it relates to individual and family concerns, but also as it relates to the general welfare of the country. The students, thereby, may learn to make decisions for altruistic purposes.

The shift to the macro level is made with the assumption that the students would have had, by this time, a good enough understanding of the country's population situation, having learned this from a series of lessons in Social Studies in the Third and Fourth Years. In other words, this unit on family planning is not introduced in isolation but rather builds on learnings students havealready gained in other subjects.

Hopefully, the knowledge and understanding that the students would gain from this sub-unit would assist them in making decisions regarding family size and family planning methods they may use in the future. It is hoped that, because they may have internalized an attitude regarding family size, they may make such decisions as would help in the solution of the population problem of the country. It is needless to say that the knowledge and understanding gained from this unit will become doubly important when one realizes that not long afterwards, the fourth-year students might be starting families of their own. Statistics on marriage by relative ages of groom and bride from 1958 to 1969 reveal that the greatest number of marriages takes place between the ages 15-20 and 20-24 years.

In view of the fact that the task of decision-making requires not only an objective understanding of the issue at hand based on accurate facts and information, but also on certain skills, this unit emphasizes the maximum utilization of those instructional methods and procedures that will help students to think and work independently, evaluate issues, and look for the answers to questions and problems. For this matter, the unit utilizes such activities as survey, debate, discussions, and role-playing. Likewise, the students, since they are more mature than their junior counterparts in the lower years, are relied upon to gather information from authoritative sources like libraries, agencies, and resource persons.

To help the Muslim student, the Muslim view on family planning was added together with illustrations to help him understand family size.

The time allotment suggested in this unit is by no means rigid. The teacher is free to set the time allotment of each lesson to suit the needs and levels of ability of his class. Ten class periods have been alloted for this unit on family planning in the apportionment of the time allotment for health education in the CAT Program. The teacher may substitute other references if those suggested are not available.

The culminating activities are in themselves evaluative in nature. The teacher is encouraged to use them as they measure varied outcomes of the unit. For the usual paper-and-pencil knowledge test, some sample test items are given.

At the end of this unit, and reinforced by learnings gained in other subjects on population and the population situation, the students might have internalized a value for a family size and the means to attain it. An internalized value based on knowledge and understanding is the most effective and functional kind of learning and a sound basis for future behavior.

I. OBJECTIVES

A. General

Develop knowledge, understanding, and appreciation of family planning as bases for informed and responsible decision in the future.

B. Specific

1. Define family planning.
2. Enumerate and explain the health benefits of family planning.
3. Describe, with the aid of illustrations, the various methods of family planning.
4. Relate family planning to population growth.
5. Evaluate population issues objectively.
6. Conclude that family size can be planned.

II. CONTENT

A. In terms of a concept

Family size can be planned.

B. In terms of related ideas

1. Methods of family planning are available to couples who wish to plan their family size.
2. Family planning improves the health of the family.
3. Family planning is one of the measures for curbing population growth.

C. In terms of topics

Family Planning

1. Family Planning as a Means of Fertility Control
2. Health Benefits of Family Planning
3. Methods of Family Planning
4. Family Planning Services

a. Government

   1) Department of Health or local offices, like City Health Department, Provincial Health Department, Municipal Health Department

b. Private Agencies

   1) Institute of Maternal and Child Health (IMCH)
   2) Family Planning Organization of the Philippines (FPOP)
   3) Asian Social Institute (ASI)
   4) Etc.

c. Private Medical Practitioners

III. SUGGESTED ACTIVITIES

Lesson 1

A. Specific Objectives

1. Conduct a survey on family size preferences.
2. Organize and interpret data gathered on family size preferences.

B. Subject Matter

Survey on Family Size Preferences of Students

C. Materials

Questionnaire on family size preferences
Picture cutouts
Flannel board

D. Suggested Procedure

Opener

Present picture cutouts on a flannel board or in a diorama of a young man and a young woman talking happily. (Appendix B)

> What may the happy-looking young man and woman be talking about?

Elicit a number of answers, one of which might be this: "They are planning for marriage."

> What do couples talk about when they plan for marriage?

Guide the class to mention the children they will have as one of the many things couples talk about when they plan for marriage.

The teacher then presents pictures of several family sizes and encourages pupils to talk about these. (Appendix C,D,E,F)

Development

Find out the student's attitudes toward family size. The set of questions below are suggested.

> Say: The pictures you have just seen represent examples of family sizes. You, your brothers and sisters together, make up a family size. Family size may vary from one family to another. Would you like to find out the family sizes of students in this class? How would your family size compare with the family size you may wish to have?

As students will organize data by groups, have them answer these questions in four separate small sheets of paper.

1. How many children have been born to your mother? Include all children born alive and those who have died after birth. (Ever Born.)

   ____

2. How many living children are there in your family? (Family Size)

   ____

3. What do you think is the ideal number of children for a family to have? (Considered Ideal) ______________

4. If you marry, how many children would you wish to have? (No. of Children Expected) ____________________

In addition to asking for information about the actual number of births to the mothers of the group or the present family sizes of students, the questionnaire asks for information about the number of children that the students considered ideal for a family to have, and the number of children students expect to have. These are the three measures of fertility that demographers use most frequently in their study of childbearing patterns: (1) actual number of children ever born in a given period, (2) the number of children considered ideal for a family to have, and (3) the number of children people expect to have themselves.

Organize the class into working groups. Since there are four kinds of data elicited by the survey, it would be conveniet to divide the class into four groups. Each group compiles, interprets and presents one kind of data gathered from the survey. One group collects all sheets of paper containing answers to question number 1; another group collects answers to question number 2; etc.

The group may use the table below in compiling the data gathered.

	QUESTION 1 Ever Born		QUESTION 2 Family Size (Living Children)		QUESTION 3 Considered Ideal Family Size		QUESTION 4 No. of Children Expected	
No. of Children in a Family	No. of Families (1)	Total No. of Children (2)	No. of Families (3)	Total No. of Children (4)	No. of Respondents (5)	Total No. of Children (6)	No. of Respondents (7)	Total No. of Children (8)
1								
2								
3								
4								
5								
6								
7								
8	3	24						
9								
10								
11								
12								
13								
Etc.								
Totals								
Average								

Directions for entering the data in the table:

1. Enter responses to each question in the corresponding colums labelled: Ever Born, Family Size, Considered Ideal Family Size, and No. of Children Expected. Since each group has been given one kind of data to compile, then each group fills out the corresponding column in the table. If there are a total of 3 families which reported 8 children in answer to question no. 1, enter 3 in column 1 after no. 8; and 24 in column 2, meaning to say that 3 families with 8 children give a total of 24 children.

2. Do the same for responses to questions 2,3, and 4.

3. To get the totals, add the numbers in all columns.

4. To get the average number for each category, use the following formulas:

$$\text{Average Family Size} = \frac{\text{Sum Total of Living Children}}{\text{Total No. of Responses}}$$

$$\text{Average Ever Born} = \frac{\text{Total No. of Children in Category}}{\text{Total Responses for the Category}}$$

$$\text{Average Considered Ideal} = \frac{\text{Total No. of Children in Category}}{\text{Total Responses for the Category}}$$

$$\text{Average Expected} = \frac{\text{Total No. of Children in Category}}{\text{Total Responses for the Category}}$$

After the treatment of data, the students interpret findings of the survey. The following questions may help them in interpreting findings:

1. What is the average family size most of the students come from?

2. What is the average number of children ever born to the mothers of the students?

3. What is the average family size considered ideal?

4. What is the average family size students wish to have?

From the above findings, students may draw conclusions. Examples of possible conclusions may be:

1. The average family size most of us come from is large.
2. The average number of children ever born to the mothers of the students is the same/or larger than the actual family size.
3. The average family size considered ideal by us is smaller than the average family size most of us come from.
4. The average family size we expect to have is identical to the average family size we consider ideal.

The above conclusions may not necessarily be the ones the students may draw from the findings of the survey. Likewise, if the students reached the same conclusion as stated in number 1, they should be encouraged to define "large family": arbitrarily it could be families with 5 or more children.

Conduct a class discussion on the question:

How can you have the family size that you expect to have?

Assuming that the students choose or prefer family size different from or similar to that of their parents, how can they go about it? The class discussion would lead to family planning.

Assignment

What is family planning?
What are the health benefits of family planning?

Lesson 2
(1 class period)

A. Specific Objectives

1. Define family planning.
2. Enumerate and explain the health benefits of family planning.
3. Share one's ideas and opinions on family planning.
4. Respect the ideas and opinions of others.

B. Subject Matter

What Family Planning Is
The Health Benefits of Family Planning

C. Materials and References

Types of Contraceptive Devices (Appendix A, p. 107.)

44 Questions and Answers on Family Planning. Manila: National Media Production Center, 1972.

Love-Birth-Contraception. Produced for the Commission on Population by the Population Information and Education Office, National Media Production Center (PIEO/NMPC), 1972.

Your Future Family, produced by the PIEO/NMPC, 1974.

"Resource Material for Family Planning," BIT, pp. 90-100.

D. Suggested Procedure

Opener

Our survey yesterday revealed your preferences for family size. Some of you expect or wish to have family sizes similar to those your parents had, while most of you expressed a desire for a family size different from that of your parents. You have reasons for your preferences. In our discussion yesterday, it was gathered that you can do something to have the family size that you may wish to have. What can couples do to have the desired number of children?

Lead the class to the answer: Family Planning.

Development

1. Exploration: Explore what students know about family planning, written, or oral.

   a. Have students express their own ideas about family planning.

   b. Have students quote or cite definitions of family planning given by authorities.

   c. Have students analyze, compare, and contrast their own concepts with those given by authorities.

   d. From this discussion, the students may evolve their own definitions of family planning.

   In addition to the definitions given in the BIT, the students may study the definition given by the Twenty-First World Health Assembly of the WHO Scientific Group on the Health Aspects of Family Planning, as follows: "Family Planning is a way of thinking and living that is adopted voluntarily, upon the basis of knowledge, attitudes, and responsible decisions by individuals and couples, in order to promote the health and welfare of the family group and thus contribute effectively to the social development of a country." Within this context, family planning implies decision and action that will help people to achieve their family goals for the betterment of their living conditions."

   The students should be encouraged to air their views on family planning even if they feel that they are not sure of their answers. This activity is crucial if students are to develop a clear and accurate understanding of the objectives and goals of family planning. At this point in the unit, the teacher may need to stress responsible sexual behavior in young people in relation to contraceptives - that is to say, that a knowledge of family planning is part of their preparation for responsible parenthood and that having such knowledge today should not mean that they can use this irresponsibly as in "experimentation" or in promiscuous sexual behavior. This is the place, likewise, to stress that family planning is for married couples only.

2. Class Discussion: The health benefits of family planning to the mother, to the baby, and to the family as a whole.

   Having a thorough understanding of the concept of family planning, the students may now consider its health aspects. Utilizing existing groups organized for the purpose, the class may discuss the health benefits of family planning. Afterwards, the group chairman or rapporteur may report the results of the group discussion. An open forum may follow the oral reports.

Assignment

Library research on family planning methods.

Materials on family planning are available in family planning clinics in the community. The students may be assigned to gather the needed materials.

Lesson 3
(2-3 class periods)

A. Specific Objectives

1. Name and describe, with the aid of illustrations, the various methods of family planning.
2. Reason out why there is a need for medical supervision when using some family planning methods.
3. Show evidences of further growth in the ability to locate and gather information from oral and written reports, leaflets, and pamphlets issued by family planning agencies.

B. Subject Matter

Methods of Family Planning

1. Temporary voluntary control
    - a. Methods
    - b. Advantages and disadvantages
2. Contraception
    - a. Methods
    - b. Advantages and disadvantages
3. Sterilization
    - a. Methods
    - b. Advantages and disadvantages

C. Materials and References

Love-Birth-Contraception, produced for the Commission on Population by the PIEO/NMPC, 1972.

"Resource Material for Family Planning", BIT, pp.

Pills, produced for the Commission on Population by the PIEO/NMPC, 1973.

IUD, produced for the Commission on Population by the
PIEO/NMPC, 1973.
Balak Sa Kinabukasan, PIEO/NMPC, 1974
Para Sa Lalaki-Vasectomy, PIEO/NMPC, 1974.
Payo sa Bagong Ina, produced for the Commission on
Population by the PIEO/NMPC.

D. Suggested Procedure

Opener

Our previous discussions have pointed out that you or any couple can have the family size you or they may desire through family planning. It is interesting to note that you have arrived at a definition of the term through cooperative thinking. Let us restate the definition of family planning evolved by the class. Remember that family planning benefits not only the mother's health but also that of the newborn and of the family as well. Give these benefits of family planning.

Development

A lecture on "The Methods of Family Planning" may be given by the physician from the family planning clinic. Arrangements for this lecture should be made by the teacher or by some students before the scheduled activity.

After the lecture, an open forum may follow.

Alternate Activity

If a family planning physician is not available in the community, this alternate activity is suggested:

> An illustrated talk may be given by the teacher or by selected students on the different methods of family planning. After this talk, as a further explanation of the rhythm method, the exercise below may be given.
>
> Have the girls record at least 6 of their menstrual cycles. This exercise is also part of their lesson in Home Economics. Have the girls determine their fertile period by applying the following formula:
>
> Subtract 11 from the longest cycle and 18 from the shortest cycle. For example, in a record of 6 menstrual cycles: 28, 27, 32, 26, 30, and 28, the longest cycle is 32 and the shortest, 26. Using the 11 and 18 formula, 32-11 = 21 for the longest cycle and 26-18 = 8, for the shortest cycle. This means that the 8th to 21st day from the first day of menstruation is the fertile period.

Conduct a class discussion on why mothers need medical supervision when using some family planning methods.

Summary

This activity may be done after the lecture or illustrated talk on the same day or on the following day. Questions on the lesson may be further entertained. The students may also be assigned, after the lecture, to prepare a summary chart on the methods of family planning, like this one:

Method	Description	Advantages	Disadvantages
1. Oral Pills	A synthetic sex hormone which functions by supressing ovulation	1. Popular 2. Prevents pregnancy well 3. Safe 4. Can have baby later 5. Nothing to do just before making love 6. Low cost 7. Can improve menstrual cramps	1. Must be taken every day 2. Temporary side effects 3. Additional need and cost 4. May decrease milk 5. Should see a doctor before beginning its use

Assignment

What is your stand on this: "It is right/wrong for couples to use contraceptives as a method of family planning." Defend your stand.

Encourage the students to interview their parish priest or minister or imam on the matter.

Lesson 4
(1-2 class periods)

A. Specific Objective

Take a stand on an issue on contraceptives and be able to defend it.

B. Subject Matter

The Moral Aspects of the Use of Contraceptives

C. Materials and References

Excerpts from "Islam and Family Planning" by Dr. Cesar A. Majul, Appendix H, p. 117.

Excerpts from: "Some Thoughts on the Moral Aspects of Family Planning" by Fr. Luis Jalandoni. (Mimeographed) Appendix G, p. 113.

D. Suggested Procedure

Opener

The Filipinos are, generally, a religious people. Because of our historical past, majority of our people are Catholics. Religion plays a significant role in many of the decisions we make. It is not surprising that religion can be a factor when a couple makes a decision regarding family planning. Even among our Muslim brothers, their religion determine many of the things they may decide to do or not to do.

An issue that is likely to come up is this: "Is it sinful for couples to use contraceptives?" From various religious points of view, what do you think? Let us find out your stand on this issue.

Development

Group discussion on the issue:

"Is it right for couples to use contraceptives as a method of family planning?"

Divide the class into two, those for and those against the use of contraceptives.

Allow 15-20 minutes for this discussion.

Students present and defend their stand on the issue through their group discussion leaders.

A student moderator sums up the students' stand on the issue.

Assignment

1. Make a survey of the following:
   a. Number of family planning clinics and services from private medical practitioners in the community

b. Length of time these clinics and services have existed
c. Sale of contraceptives in local drugstores
d. Number of couples and mothers or wives who have sought services from these clinics
e. Statistics for a given period on: the population, number of births, and number of deaths in the community

Lesson 5
(1-2 class periods)

A. Specific Objective

Organize, analyze, and interpret data on family planning gathered from the survey.

B. Subject Matter

Family Planning services

1. Government
2. Non-government

C. Materials and References

Types of Contraceptives Devices, Appendix A, p. 107.
Responsible Parenthood Clinics Directory of the Philippines
Census Reports

D. Suggested Procedure

Opener

Review methods of family planning with the aid of a Summary Chart (Appendix A: Types of Contraceptives Devices, p. 107.

We have learned that there are various family planning methods many couples use if they so decide to limit their family size. Too often it happens that there are couples who have heard or who have known about family planning methods. They are desirous of practising family planning; however, they do not know where to go for the services. In family planning, practice goes hand in hand with facilities. Let us find out the family planning services available in our community.

Development

1. Survey

Present the results of a survey of family planning clinics, family planning services provided by private practitioners, and drug stores selling contraceptives.

How many clinics, services from private practitioners, and drug stores selling contraceptives are there? Where are they located? How long have these clinics started giving these services to the community?

How many couples, mothers, wives have thus far sought family planning services?

Has there been any effect of family planning programs on the population growth in the community?

2. Group Work activities may include:

a. Making a map of the community and marking on this map locations of family planning clinics and services, both government and private.

b. Graphing data on the number of mothers or wives who have sought family planning services, by months or years.

c. Graphing the population growth of the community or town.

d. Evaluating the effect of family planning programs in relation to population growth in the community.

1) If there has been a decrease in the growth of population in the town, may this be attributed to the existence of family planning services in the community or town? Why?

2) If there has been no substantial decrease in the growth of population in the town or community, why is this so despite the presence of family planning clinics?

The teacher should note that this is not a one-to-one relationship, i.e., that family planning services alone, their presence or absence, cause a decrease or increase in population growth in the community. If the data revealed that despite the widespread utilization of family planning services, there has been no decline in population growth in the community, the students should be led to discover or explain the cause of this findings. For instance, migration may explain such a finding.

Assignment

1. How is family planning related to the population growth situation in our country?

2. Organize a debate. Resolve: Family planning can help solve the population problems in our country.

Guide Questions

1. What is our national policy on family planning?
2. What is the rate of population growth in the Philippines?
3. What beliefs and practices of the Filipinos encourage large families?
4. What are other countries with rapid population growth doing to solve this problem?

Lesson 6

(1-2 class periods)

A. Specific Objectives

1. Discuss the relation of family planning to population growth.
2. Present arguments for and against a population issue.
3. Evaluate a population issue objectively.
4. Make a tentative decision regarding family size

B. Subject Matter

Family Planning and the Population Problem

C. Materials and References

Excerpts from: Mercedes B. Concepcion, "Population Growth Implications in the Seventies," Appendix I, p. 123.

Robert S. McNamara, "The Population Explosion," Appendix J, p. 126.

Excerpts from: Fr. Luis Jalandoni, "Some Thoughts on the Moral Aspect of Family Planning," Appendix G, p. 113.

Lecture by: Dr. Cesar Adib Majul, "Ang Islan at Ang Pagpaplano ng Pamilya," Appendix H, p. 117.

D. Suggested Procedure

Opener

Thus far, we have viewed family planning as it relates to the individual, to the family, and to the community. Maybe you have made a decision regarding family planning for the future. It is possible that this decision is made in the light of what will be good for you, your future spouse, future children, and future family as a whole. This is a good enough basis for a decision. However, have you ever wondered about the population situation in our country? Have you ever thought of what you can do about the situation our country is facing?

Development

Have students conduct a debate on: Resolve: Family planning can help control the population growth in our country.

Have the class organize 2 teams of three members, each with a leader. Give the teams 15 minutes each to present their arguments for and against the issue.

Have students choose a moderator from the class.

Have students invite 2 or 3 teachers in their school to sit on the panel of judges. Students may also select from among themselves, members to sit on the panel of judges.

Have the class evaluate the debate in terms of both delivery and arguments presented.

Culminating Activity

The culminating activities suggested below are in themselves evaluative in nature. The role-playing and the written composition are especially intended to measure changes in attitudes. The bulletin board construction, poster, and album or flip chart-making, along with teacher-made paper-and-pencil tests, are appropriate measures of increments or gains in knowledge.

Another suggested culminating activity that the fourth-year high school students may want to participate in is motivational work for family planning. Students, either in pairs or in groups of 3 or 4, talk about family planning to couples in their community. This activity may be undertaken with the assistance of or in coordination with the motivational activities of the family planning clinics in the community. This culminating activity not only tests knowledge of what they have learned in the unit, but also leads to self-commitment. Likewise, it takes them out to the community - the real setting of the problem. Thus, learning is more functional.

Have students role-play the following situations:

In the course of the role-playing, attitudes and appreciations regarding family size may be reflected in what the participants say. These should be observed and noted down carefully.

Situation 1

A couple is planning to get married. One of the things they talk about is family size.

Situation 2

A wife, soon after delivery, is visited by a family planning worker in the presence of the husband.

Have students write a composition or an essay on any of the following topics:

1. My Commitment (Obligation and Responsibility) to the Population Situation of Our Country
2. Why Couples Should Plan Their Families
3. Family Planning - A Way Of Life in the New Society

The class may work on the following projects:

1. Bulletin board construction depicting family planning methods and services
2. Poster making on the same subject
3. Album making on the same subject
4. Flip chart making on the same subject

IV. SAMPLE ITEMS ON KNOWLEDGE TEST

A. Multiple Choice

Directions: Encircle the letter of the correct answer.

1. Which of the following contraceptive methods make use of the natural reproductive process?

   a. the diaphragm
   b. the sheath (condom)
   c. the intra-uterine device (IUD)
   d. the rhythm method

2. One of these ideas is not included in the concept of family planning in the Philippines:

   a. birth control
   b. spacing of births
   c. helping infertile couples to have children
   d. abortion

3. A vasectomy is

   a. a birth-control method for man.
   b. a birth-control method for woman.
   c. a part of the male reproductive anatomy.
   d. a part of the female reproductive anatomy.

4. The pill works as a family planning method by

   a. preventing conception.
   b. killing sperms.
   c. preventing ovulation.
   d. blocking sperms from meeting the ovum.

5. Etc.

B. Essay

Directions: Read each situation carefully and answer the questions accordingly. Bear in mind the Laws of Islam and the moral aspects involved in each situation.

1. Babu Fatima, 30 years of age, has two children. She had a difficult delivery during her last pregnancy which led her and her husband to think of birth control.

   What should they do? Why?

2. Kaka Ayesha is five months pregnant. She was bleeding profusely and was rushed to a hospital. Her husband is very anxious about her life.

   If you were a doctor, ______________________________
   ____

3. Badria, now 30 years of age, has been married for 2 years. She hopes to have children soon.

   What can she do?

4. Haridya, 25 years of age, had a daughter by "caesarean" operation. Both she and her husband have decided to have other children after every 4 years.

   What method can they use to space their children?

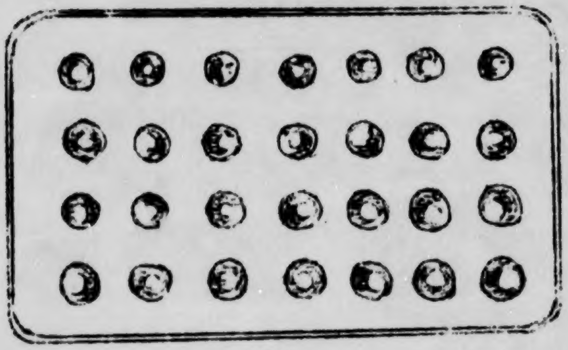
   Why?

5. Babu Jamila and her husband, both 25 years of age, have had 3 children during their 4 years of marriage. They admit having neglected their children.

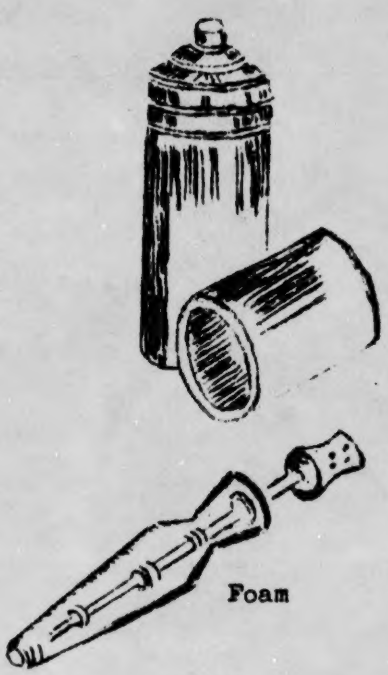
   What can they do to avoid a yearly pregnancy? Why?

APPENDIX A

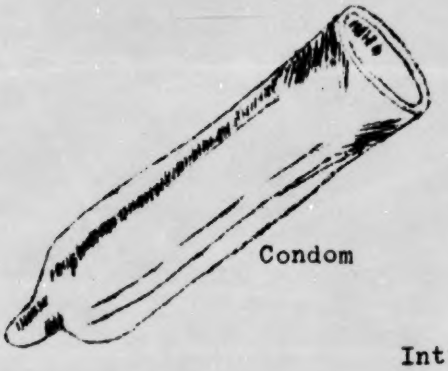
CONTRACEPTIVE DIVICES



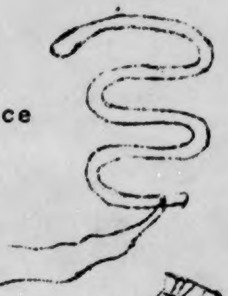
Pills



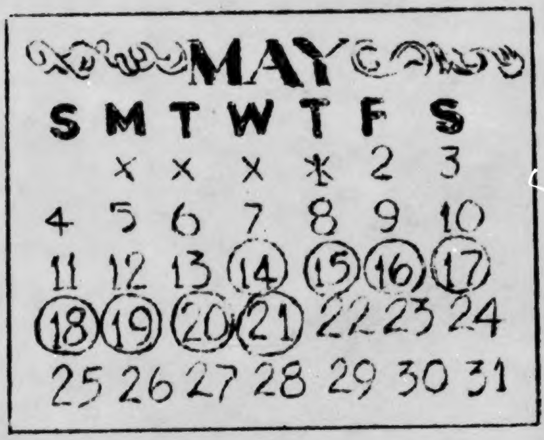
Foam



Condom



Intra-uterine device
(I.U.D)


MAY
S M T W T F S
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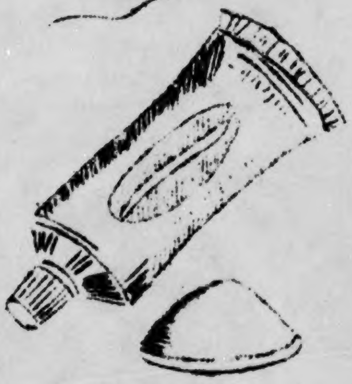
4 5 6 7 8 9 10
11 12 13 14 15 16 17
18 19 20 21 22 23 24
25 26 27 28 29 30 31

Rhythm



Diaphragm and jelly

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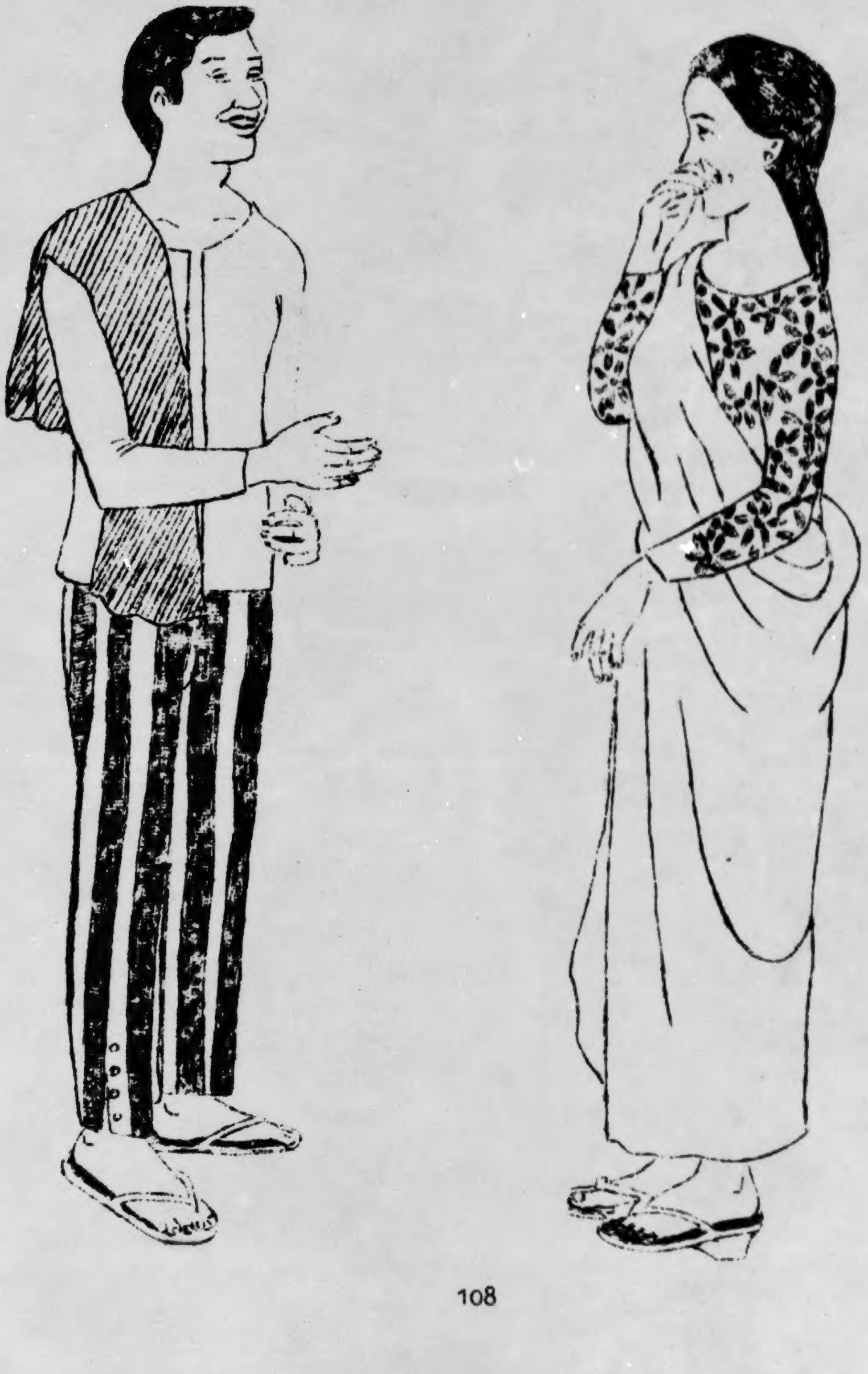
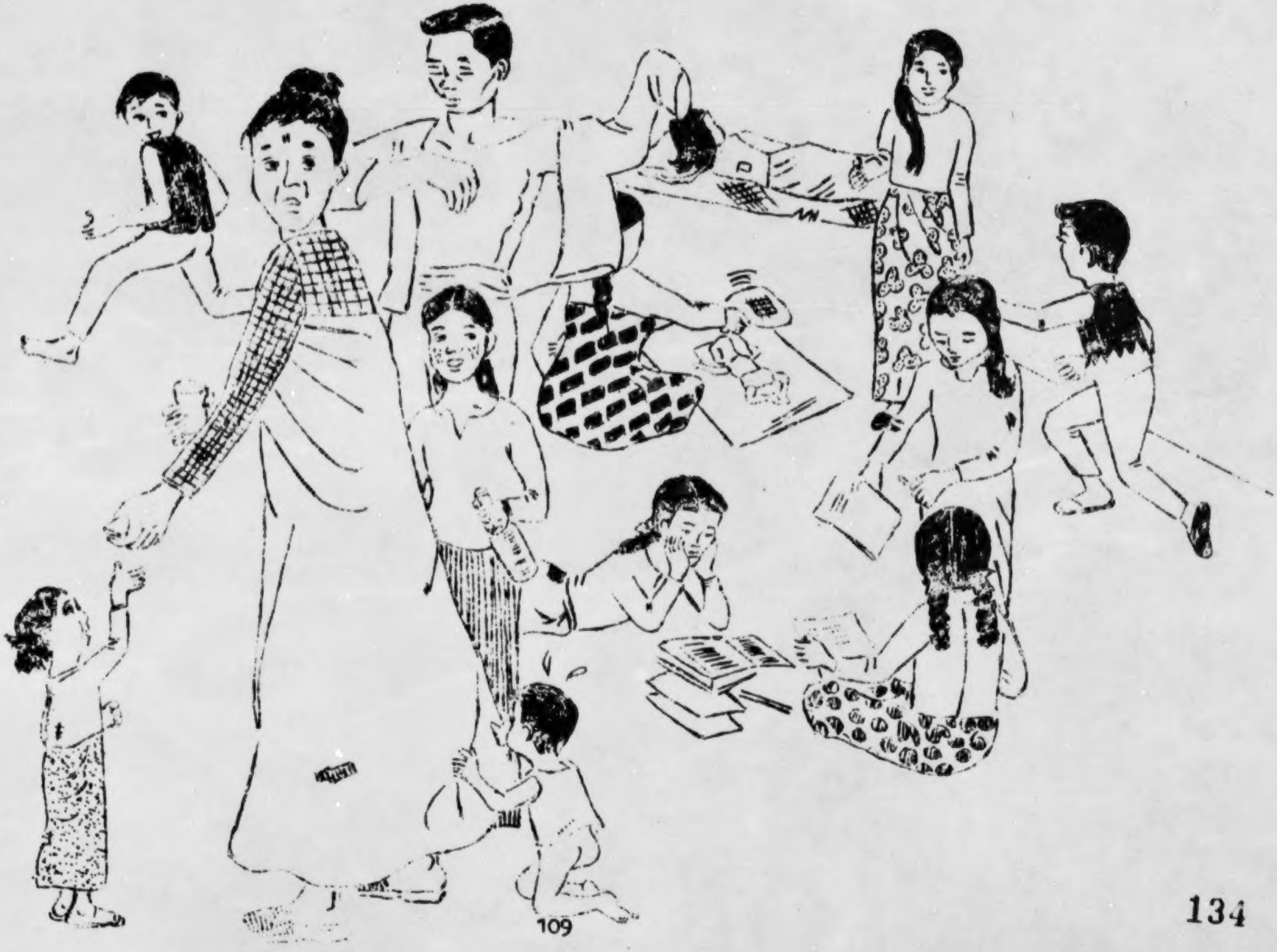
APPENDIX B



APPENDIX C



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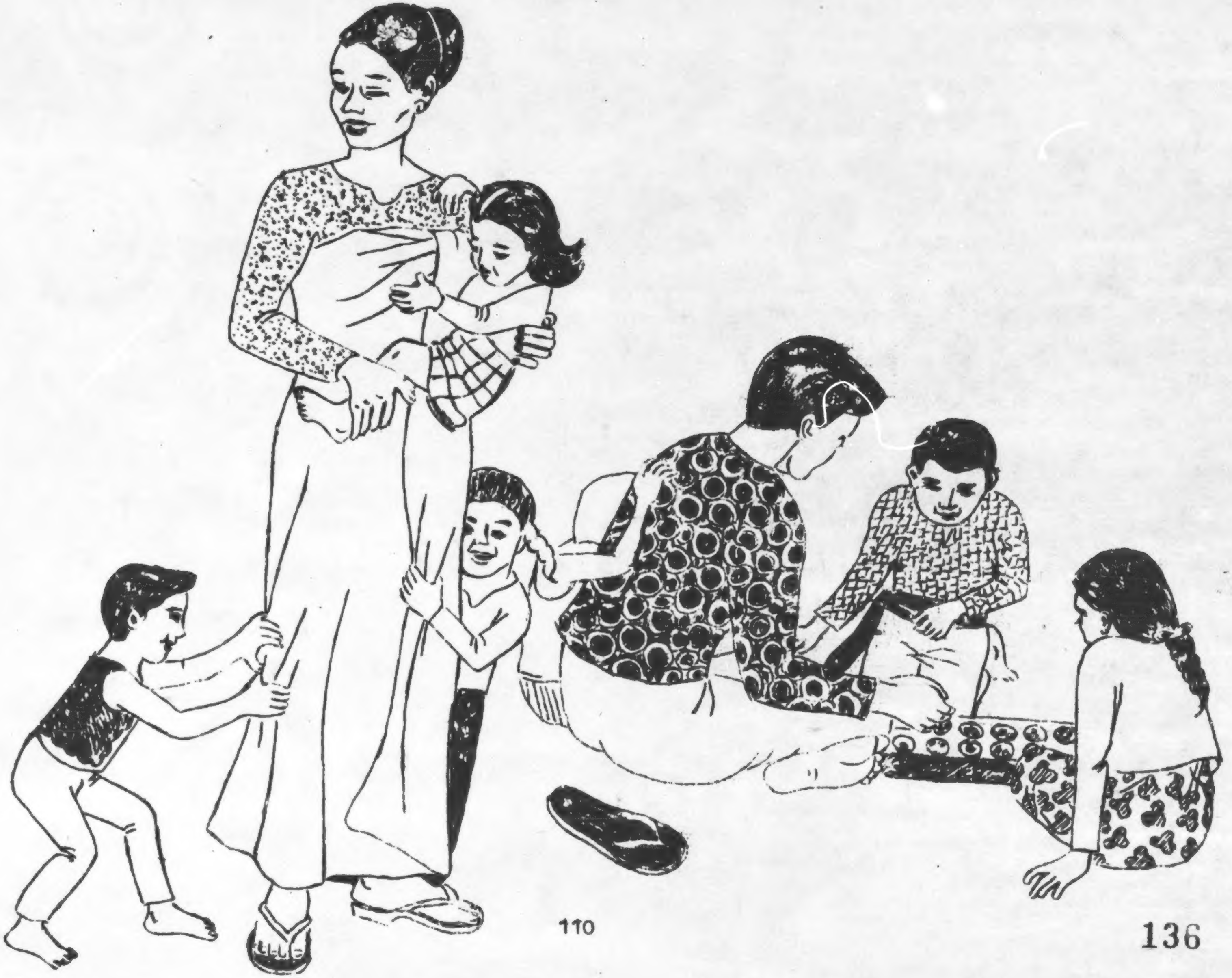
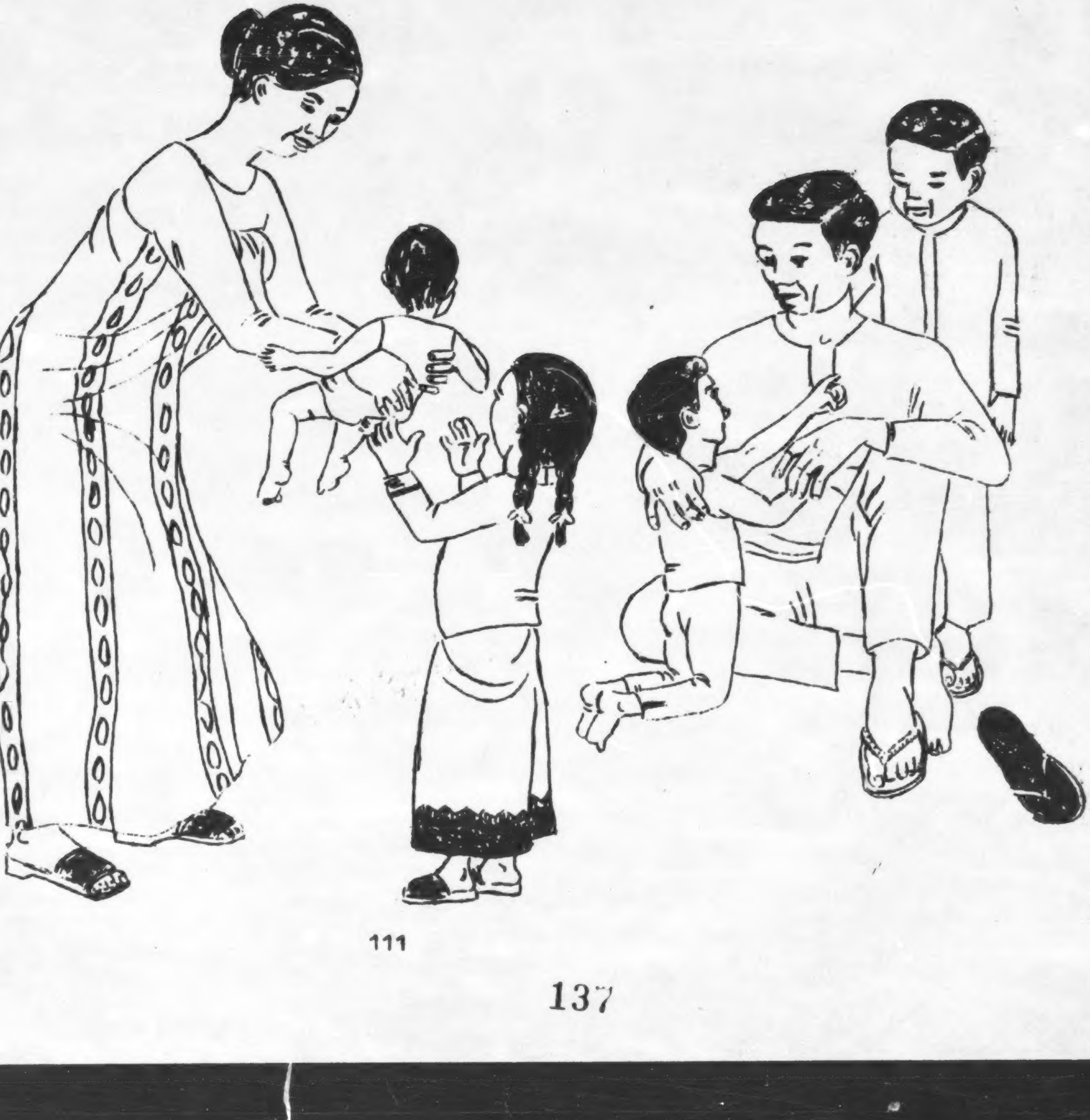
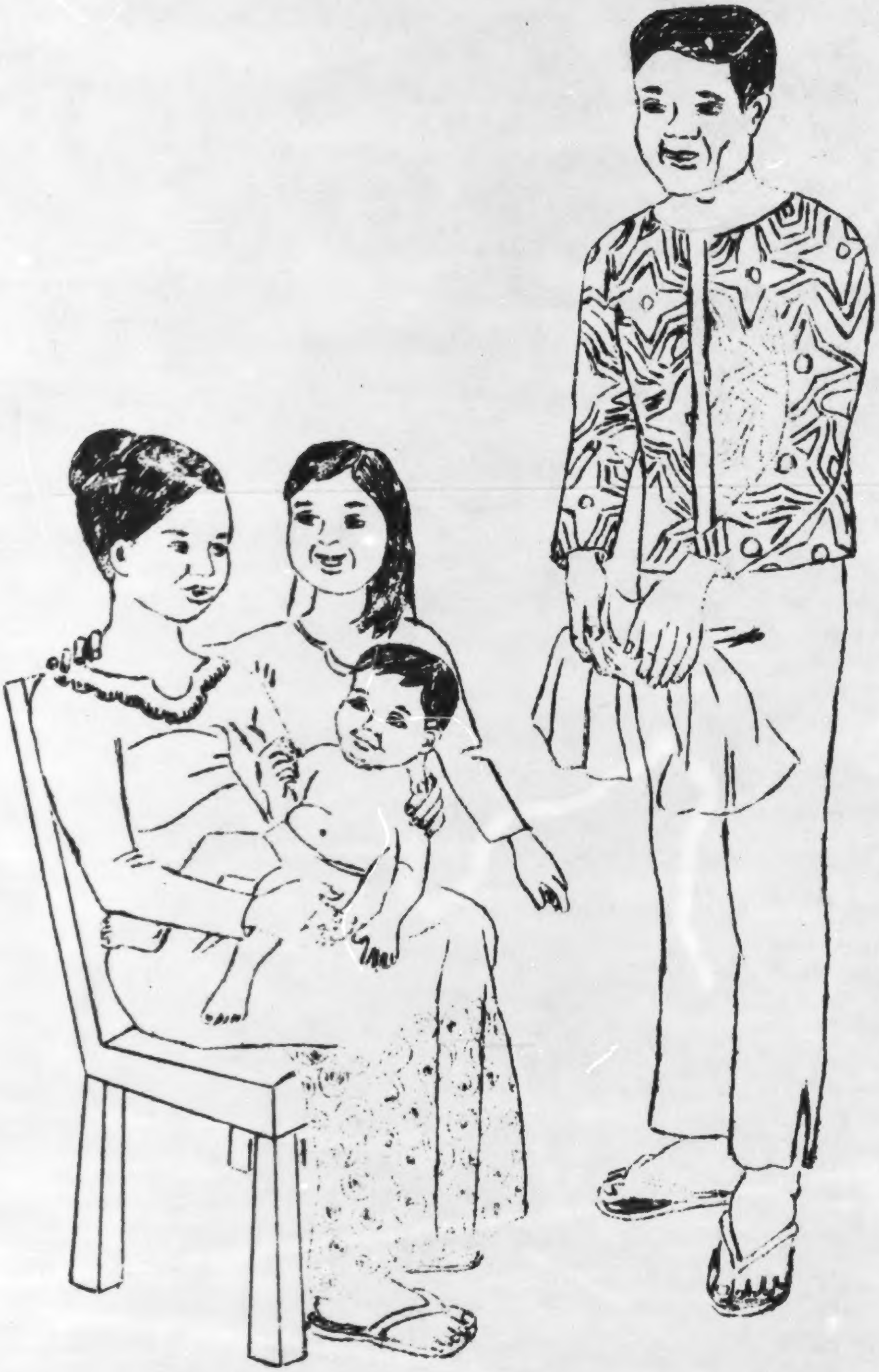
APPENDIX D



APPENDIX E



APPENDIX F



APPENDIX G

SOME THOUGHTS ON THE MORAL ASPECT OF FAMILY PLANNING
(Excerpts from Fr. Luis Jalandoni's Article)

Planning is a natural human activity. It means the exercise of the human faculties of intellect and free will. We engage in planning whenever an important event is forthcoming. For example, for the celebration of the town fiesta, a committee is designated to take charge of the food, another prepares for the dance, music, lights and chairs; yet another arranges for the Church decoration and the mass, etc.

All the more is planning needed for something so important as the strength of the family and its happiness, the schooling of the children and their health. This concerns not just one event but a long period of living together and preparing children for life. Hence, we could rightly say that family planning is an obligation of the married couple. It is both a right and a duty for them to use their intellect and free will to plan for the good of their marriage, the health and future of their children.

Family planning may mean - for childless couple - asking medical advice and using modern medical science in order to have a child of their own. Oftentimes, however, it can mean limitation of childbirth; child spacing or an outright stop to conception. It will then deal on the various methods of birth regulation. It is particularly on the morality of some methods of birth regulation that religious and moral questions arise.

Pertinent Characteristics of Christian Morality

However, before we discuss further the moral aspect of family planning, let us take some characteristics of Christian morality which we might find pertinent to our discussion.

Upon being asked to give a talk on the moral aspects of family planning, I decided to re-read the Gospels to get a feel of the morality which Christ urges on us. I felt that Christian morality has to be based on Christ's own words and deeds, His life and even His death. Reading the Gospels, I got the feeling of Christ's concern for persons; for children and for adults. He was concerned with their health (He was among the sick and He cured them), with their hunger (He fed the hungry), with their need for faith, forgiveness and love. We might say then, that Christian morality is eminently personal, because Christ responded to the needs of the person rather than to the prescriptions of the law. Christian morality is hot legalistic. On many occasions Jesus openly spoke out against the extreme legalism of His time, pointing out the inconsistency of insisting on the strict observance of the law while disregarding the human need of the person. Two examples especially express this mind of Christ: Mark 2, 23-28; "On a Sabbath day as Jesus and His disciples were talking through the fields, the disciples were breaking off heads of wheat and eating the grain. Some of the Jewish religious leaders said to Jesus, "They shouldn't be doing that! It's against our law to harvest grain on the Sabbath!"

But Jesus replied, "Didn't you ever hear about the time King David and his companions were hungry, and he went into the house of God - Abiathar was high priest then - and they ate the special bread only priests were allowed to eat? That was against the law, too. But the Sabbath was made to benefit man, and not man to benefit the Sabbath. And I, the Son of Man, have authority even to decide what men can do on Sabbath days!" Mark 3, 1-6.

I cite these examples, because present day Catholics still seem to be inclined to legalistic norms. For example, a person accuses himself of having committed grievous sin for having missed mass on Sunday, although he was sick and bedridden at the time. Such a person still thinks of Christianity as a list of commandments and prohibitions. Whenever he does not comply with the norm, whatever the reason might be, he believes he has committed a sin. But we could say to him that Christ loves us, he loved us enough to die for us. Hence, when we are sick, he wants us to rest at home and get well, so that we can work again and take care of those entrusted to our care.

True Christianity should rather be lived as a personal relationship between God and man, and between man and his fellowmen - in Christ.

Christian morality should be a continuous growing in personal relationships, relationships of love. It should be a continuous striving to deepen love, to respond to the love of God through our life of faith, hope and love.

While speaking of Christianity as a personal relationship of love, we can point to another characteristic of Christian morality. It is "maximal", that is, it always urges us to give our utmost, the maximum. Christ's words are clear on this matter. 'Be you perfect as your heavenly Father is perfect." (Math 5:48) "You shall love the Lord your God with your whole heart, with your whole mind and with your whole soul." (Mark 12:3) "Greater love than this no man has, that he lay down his life for his friends." (John 15:13) His very life and death confirmed his words. He loved us unto death, even unto the death on the cross.

Therefore, we can say that Christian morality does not ask only for the minimum. A person who is truly Christian does not ask, "Father, how far can I go till it becomes a mortal sin?" "When can I enter the Church - just before the offertory prayer - so I don't miss mass"? "Father, is it a sin to ...." Such questions reflect an attitude that sees morality as "minimal", just trying to get one foot into heaven, so to say. Such an attitude is not truly Christian. It does not square with the words and deeds, the life and death of Christ. Bishop Fulton Sheen once wrote: "Two men looked out through prison bars. One saw mud; the other, stars." Christian morality directs us to look at the stars, to strive for the maximum.

PERSONAL AND MAXIMAL CHARACTERISTICS OF CHRISTIAN MORALITY APPLIED TO FAMILY PLANNING.

These two characteristics of Christian morality should also be considered in family planning.

The personal relationships in matters concerning responsible parenthood and family planning are brought out by the Second Vatican Council: "Thus they (the parents) will fulfill their task with human and Christian responsibility. What docile reverence towards God, they will come to the right decision by common counsel and effort. They will thoughtfully take into account both their own welfare and that of their children, those already born and those which may be foreseen. For this accounting they will reckon with both the material and the spiritual conditions of the times as well as of the family group, of temporal society, and of the Church herself. The parents themselves should ultimately make this judgment in the sight of God." (Vatican II, the Church Today, No. 50, emphasis added). Please note that it is the parents themselves, not the parish priest, the Bishop or anybody else, who "should ultimately make this judgment in the sight of God."

Note also that in this passage there is no talk of sin. Rather the parents are directed to seek - in honest judgment before God -what is best for themselves, their children, society and the Church. The "maximal" aspect of Christian morality stands out in this text and in many other texts of Vatican II.

THE ENCYCLICAL "HUMANE VITAE" AND A MATURE CHRISTIAN RESPONSE TO IT

On July 29, 1968, Pope Paul issued his encyclical Humane Vitae. It emphasized the sanctity of marriage, conjugal love and human life. It condemned abortion, sterilization, and all artificial methods of contraception.

I think this encyclical of the Pope has to be taken in the framework of living, personal relationships. The encyclical is the legitimate exercise of authority, an expression of love by the Pope, the highest authority in the Roman Catholic Church. It is, however, addressed, not to children nor adolescents, but to adults: adult married couples or adult men and women contemplating marriage. As such, it deserves an adult and mature response.

Therefore, adult couples should give it due serious consideration. But together with considering the encyclical's directives regarding the methods of birth regulation, they should consider also - as the same encyclical and Vatican II enjoins ritual condition, their capacity to educate the children they beget. They should also think of the good of society and weight the other statements of the Church which pertain to their decision. Such other Church statements are: "In all his activity a man is bound to follow his conscience faithfully, in order that he may come to God, for whom he was created. It follows that he is not to be forced to act in a manner contrary to his conscience." (Vatican II, On

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Religious Freedom, No. 3 "Man's dignity demands that he act according to a knowing and free choice." (Vatican II, the Church Today, No. 17) "Only in freedom can man direct himself toward goodness," (Vatican II, The Church Today, No. 17).

"For in view of the inalienable human right to marry and be born belongs to the honest judgment of the parents . .. Now since the judgment of the parents supposes a rightly formed conscience, it is highly important that everyone be given the opportunity to practice upright and true human responsibility. This responsibility respects the divine law and takes account of circumstances and the times. It requires that educational and social conditions in various places be changed for the better, and especially that religious instruction or at least adequate moral training be provided. Human beings should also be judiciously informed of scientific advances in the exploration of methods by which spouses can be helped in arranging the number of their children. The reliability of these methods should be adequately proven and their harmony with the moral order should be clear." (Vatican II, The Church Today, No. 87).

An adult couple, then should go through a process of mature thinking. They should consider the Pope's encyclical Humane Vitae and other teachings of the Church, as well as many other factors (for example: their financial capacity to provide proper schooling for their children; the role of the conjugal act as the personal and human expression of their mutual love.) They should deliberate on what is best for the two of them, for their children, for society, and for the Church; and then they should come to a decision. After that, if their decision is an honest attempt to fulfill their many obligation in the best ways viable to them, they should be at peace! They have given adult and mature responses. They have fulfilled their obligations with human and Christian responsibility.[1]

As Christians, we believe that human life is entrusted to us as a privilege and responsibility. We wish to protect, enrich and nurture life to its fullest potential. For these reasons, abortion - which means the killing of a human being already conceived but not yet able to live outside the body of its mother - could not be included as a Christian way of birth regulation.

It is the task of educators and all others involved in the noble work enriching family life to provide adult couples with what they need to make a knowing and free choice. This they can do by instilling the proper values, attitudes and motivation for family planning and by providing scientifically accurate information on the various methods of birth regulation.

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[1] Note: This paper is not intended to provide moral judgment on the various methods of birth regulation. Its purpose is, rather, to provide a frame of reference to assist those concerned in arriving at a Christian response to their needs concerning family planning.

APPENDIX H

ISLAM AND FAMILY PLANNING*

by Cesar Adib Majul

The first thing to be known about Family Planning in Islam is that it falls under the scope of the Holy Law of Islam (Sharī'a). Unlike law in the Western sense, the Holy Law of Islam covers practically every aspect of the life of the Muslim. For example, it deals with prayer, fasting, alms-giving, marriage, divorce, care of children, inheritance, diet, commercial transactions, punishments, moral conduct, etc. It furthermore categorizes all actions into the following: obligatory (fard, wājib), which can be either individual or collective; recommended (sunna, mandub, mustahabb); indifferent (mubāh); reprehensible or disapproved (makrūh); and forbidden (harām).

The two fundamental sources of Islamic law are the Qur'an and the Hadith. The Qur'an, which is the Holy Scripture of Islam, is believed by Muslims to constitute the Revelations of God Himself to Muhammad, the Prophet of Islam (c. 570-632 A.D.). In the Qur'an, God speaks in the first person. It thus contains a great deal of Divine prescriptions, exhortations, and injunctions -- revelations aiming to put mankind on "the straight path" and bring about ordered relations in society. The Hadīth, on the other hand, represents reports dealing with the sayings and practice or actions of the Prophet, that is, his *sunna.* At present, there are various collections of Hadīth, some considered more authoritative than others. When the Qur'an is silent on certain social or legal problems that may crop up, Muslim jurists and scholars are led to seek recourse to the Hadīth.

What is now understood as the Sharī'a or Holy Law of Islam, contains many more provisions than those explicitly stated in the Qur'an and Hadīth. This means that many of its provisions actually represent the attempts of jurists to make more operative its general principles. From this point of view, part of the *Shari'a* is the result of historical development.

The elaboration and interpretation of as well as additions to the explicit provisions of the two fundamental sources of Islamic Law has been made possible by various juristic techniques. Among these are: ijmā' or the consensus of the learned Muslim jurists and scholars; giyas or reasoning by analogy; istihsān or juristic preference; and istislāh or the taking of public interest or welfare into consideration.

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[*] A paper prepared for a workshop by the Population Education Program (PEP), Department of Education and Culture held at Silang, Cavite, on April 25, 1978.

Some but not all jurists add *'urf* or customary law as a source of Islamic Law. However, different jurists have laid more emphasis on one particular technique rather than another. Others had even rejected particular techniques. These facts as well as the emergence of different groups of jurists in the vast Islamic world had given rise to different schools of law (*madhhab*, pl. *madhāhib*). At present, four of these schools considered "orthodox" have survived. They are: the Hanafī, the *Malikī*, the *Shafi'ī*, and the *Hanbalī*. They all look at each other as equally valid. Due to historical reasons, the school of law which came to predominate in the Muslim South, in common with that of Indonesia and Malaysia, is that of *Shafi'ī.* There are also other schools of law still existing, e.g., the *Shi'a.*

Now, the problem of family planning has been in the minds of Muslim jurists and scholars almost from the beginnings of Islam. As is well known, there is no Pope or priesthood in Islam charged to declare authoritatively on the matter. Consequently, Muslims, in response to certain problems usually sought the advice of the learned jurists or depended on the consensus of the community (*ijmā*). Because of practical considerations regarding the difficulty of securing the consensus of the whole Muslim community as well as the fact that some Muslims are more learned than others, this consensus had become, in effect, the consensus of the learned (*'ulamā'*).

It can be stated that Islam is in general against celibacy as well as coercion in marriage. It, however, considers marriage meritorious. An aim of marriage is to preserve the human race with the family serving as the basic unit of society. According to the Qur'an:

> Our Lord! Grant us out of our wives and
> our offspring the joy of (our) eyes, and
> make us patterns of those who ward off
> (evil.) (XXV, 74)
>
> And of His signs is this: He created for
> you mates from yourselves that you might
> find rest in them, and He ordained love
> and mercy between you. (XXX, 21).

According to the philosopher Ibn Rushd (1126-1198 A.D.), known to the West as Averroes, there are certain qualifications expected of a man desiring marriage. Besides having the financial resources to support a wife and children, he must be healthy. He must also have certain moral qualifications, e.g., he must not be a gambler, drunkard, adulturer, etc. A pertinent verse of the Qur'an on one of these qualifications is as follows:

> And let those who cannot find a match
> keep chaste till Allah gives them means
> out of His grace. (XXIV, 33).

Islam has always advocated a healthy family. As such it has provisions to bring it about. The Qur'an says that "Mothers shall suckle their children for two whole years; (that is) for those who wish to complete the suckling." (II, 233). It goes on to state further that the father is obliged to feed and clothe the nursing mother.[1] But for food reasons, the child can be weaned earlier or given out to nurse. One of these reasons is the health of the mother. There is also a Hādith which states: "Do not kill your children secretly; nursing during the course of pregnancy makes the rider fall from the horse." This has been interpreted to mean that a woman should not be made pregnant while she is still nursing her child. Consequently, if a woman nurses her child for two years and follows the Prophet's advise to avoid pregnancy or intercourse during the lactation period, the birth of her children will be spaced in such a manner that there will normally not be more than four (4) births in a period of 11 years.[2]

Among the early Muslims, *'azl* (withdrawal) was allowed to prevent pregnancy. This Arabic term is now the technical term for *coitus interruptus.* Various *ahadīth* (pl. of *hadīth*) attest that the Prophet Muhammad had permitted or at least not prohibited it. One of these *ahadīth* is as follows:

> We used to practice coitus interruptus during the time of the Prophet. The Prophet came to know about it but did not forbid us. If this were something to be prohibited, the Qur'an would have prohibited us (doing it).[3]

'Azl has been recoursed to for various reasons. Among a few others, it has been utilized to prevent a nursing mother from becoming pregnant. According to Imam Al-Ghazzali (1058-1111 A.D.), one of the greatest philosophers and theologians of Islam, *'azl* can be used to safeguard a wife's beauty as well as her health if having a child or many children can cause injury to her.[4]

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[1] Also see LXV, 6.

cf. Muhammad Makki Nasiri, "A View of Family Planning in Islamic Legislation", *The Islamic Review*, Vol. 57, Nos. 3-4, March-April, 1969. p. 14.

[3] *Islam* and *Family Planning*, Published by the International Planned Parenthood Federation, Middle East and North Africa Region, Beirut, Lebanon, 1974, Vol. II, p. 557. Also see Muhammad Makki Nasiri, *op. cit*, pp. 16-17; and Zohurul Hoque, "Religion of Islam and Family Planning", *The Islamic Review*, Vol., 58, No. 1, January 1970, pp. 9-10.

[4] cf. Zohurul Hoqie, op. cit., p. 10.

Some modern Muslim jurists who permit *'azl* neverthelss consider it "uncertain, unsafe, unesthetic, and likely to cause nervous tension". Thus, they recommend the use of modern and safe contraceptives since they are more efficient in preventing pregnancy. To be noted is that the reasoning involved here is that of *giyas* or analogy.

Clearly *'azl* is different from abortion. All Muslim jurists permit abortion should the continuance of pregnancy endanger the life of the mother and if the abortion constitutes the only means to save her life. Under no condition must the life of a mother be sacrificed to save that of the foetus. All Muslim jurists consider abortion after four months (except for the reason to save the life of the mother) as a form of murder or assasination. A very small number of Muslim jurists, however, had opined in the past that an embryo can be aborted for reasons other than the life of the mother; nevertheless, the vast majority of jurists, including all those belonging to the four above-mentioned "orthodox" schools of law, prohibit this.

It is important to note that in Islam life is precious. Among the so-called beautiful names of God are: the Living (*Al-Hayī*) and the Life-Giver (*Al-Muhyī*). All life belongs to God -- that is why no person is permitted to take his own life. No animal, too, can be killed except for food or if it is dangerous. In the former case, the name of God must be mentioned. In brief, life is a trust (amanah) given to man. From this point of view, therefore. no parent owns his or her child. The life of a child is a trust charged to the parents.

Although Islam is for the preservation of the human race, it does not mean that it is in favor of unnecessarily large families or over-population. Islam desires quality more than quantity. Actually there is a *hadith* to the effect that God prefers a strong believer to a weak one. Qur'anic verses relevant to the above are:

> How many a little company had overcome a
> mightly host by Allah's leave! Allah is
> with the steadfast. (II, 249)
>
> So if there be of you a steadfast hundred
> they shall overcome two hundred, and if
> there be of you a thousand (steadfast)
> they shall overcome two thousand by permission
> of Allah. Allah is with the steadfast.
> (VIII, 66).

During the last twenty years, on account of the rapid increase of the world population, problems regarding food and other resources, rising industrialization, etc., groups of Muslim scholars had been consulting with one another as well as holding international conferences to seek a consesus on the matter of family planning. In May 1965, the Islamic Research Academy of Al-Azhar, in Cairo, Egypt, met on the matter as well as on related subjects. As is well-known, Al-Azhar, is the oldest existing university in Islam and even in the world and is considered to be the highest institution of Islamic learning. Its faculty is often consulted and even asked to issue authoritative statements on matters of Islamic law. Moreover, the Research Academy of Al-Azhar, besides containing some of the faculty of Al-Azhar as members, also includes Muslim scholars from all over the world.

The May 1965 meeting of the Research Academy witnessed extensive discussions by its Muslim members who finally came out with various resolutions. After stating in its first two resolutions that polygyny (or restricted polygamy) and divorce, subject to the limitation of Islamic law, are permissible to Muslims, it added the following four resolutions:

> "1. Islam is desirous of increasing the offspring in so far as it strengthens the Islamic Community socially, economically and militarily and furthers its dignity and defense.
>
> 2. Birth control is to be resorted to only in cases of absolute necessity and this is a matter to be left to the concerned spouses who will decide on such a necessity. As regards what constitutes necessity, this is a matter which rests purely on the conscience and religious sentiments of the individual.
>
> 3. From the religious viewpoint, it is not permissible [for the government] to frame laws prescribing individuals to practice birth control in any manner.
>
> 4. The abortion of a child in the womb with a view to control birth or adopt means leading to barreness or sterilization are practices contrary to Islamic Law and it is not permissible to the spouses or any other person."

On December 26-30, 1971, a very important conference on Islam and Family Planning took place in Rabat, Morocco. About 70 Muslim experts in the fields of Islamic Law, medicine, sociology, economics, philosophy, political science, and demography attended. Among the jurists were those belonging to the different schools of law. About 23 Islamic countries and Muslim communities were represented. Papers were delivered and lengthy discussions took place on what constituted the Islamic attitudes towards the family in its multifarious aspects -- including family planning, abortion and sterilization. The Conference on its last day was able to come forward with a consensus. On account of its importance, it is quoted fully as follows:

> "1. That Islamic Sharī'a Law, by virtue of its rules on the family, adequately provides for its being cared of and for its safety and the regularity of its affairs in such a way as not to leave room for disintegration or infirmity to find its way to its structure.

2. That the Islamic Law, through its provisions, whether recorded in the Qur'an or the traditions or inferred from other recorded provisions according to the method of inference and ijtihad (individual discretion), ensures that the Muslim family will be able to tackle successfully any new situation and have it under control, with correct and sound solutions and measures.

3. That the Islamic Law allows the Muslim family to be able to look after itself as regards the procreation of children, whether this is in the sense of having many or few of them. It also gives it the right to deal with sterility and to arrange suitably spaced out pregnancies, and to have recourse, when needed to safe and lawful medical means.

4. The Conference considered the question of sterilization and felt that the findings of the Academy of Islamic Research at Al-Azhar are worth following in this matter, namely, that the use of means which may lead to sterility is not allowed by the law to the married couple or to anybody else.

5. On the subject of abortion, i.e., the expulsion of the baby-to-be from the uterus with the intention of disposing of it, the Conference is of the opinion that all Muslim scholars in jurisprudence are agreed that it is forbidden after the fourth month except for extreme personal necessity for saving the mother's life. For the period before the end of the fourth month, although there are numerous different opinions among the scholars in jurisprudence, the correct view tends to forbidding it at any stage unless for extreme personal necessity to save the mother's life, or in the case of of there being no hopes for the life of the fetus.[5]

The 1965 resolutions of the Al-Azhar Research Academy as well as the consensus of the 1971 Rabat Conference on Family Planning are quite clear and authoritative. Both should therefore serve as guides for any Muslim family or institution interested to know further about the Islamic attitude towards family planning.

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[5] Islam and Family Planning, Vol. II, pp. 489-490.

APPENDIX I

The following are some excerpts from several articles.

I. POPULATION GROWTH IMPLICATIONS IN THE SEVENTIES

Mercedes B. Concepcion

In this country of some 7,000 islands resides a population of well over 34 million persons. The Philippines, a selective blend of Asian, Spanish and American strains, holds a special appeal for demographers. For within its shores can be found extensive economic and social diversities - major resources for an industrial economy, large potentials for agricultural expansion, increasing urbanization. But here too can be found dismaying destitution, an under-utilization of human resources and the most rural of barrios. Its people, the most educated in Asia with fervent aspirations for the good things in life, have one of the highest birth rates in the world today. The Filipinos are facing a decisive turning point in their demographic history. Whether they meet this challenge with energy and vision or ignore it completely depends on their determination and the zeal of their leaders.

From the point of view of population, the major issues during the decade will be food, jobs and schools. These areas will require huge investments just to keep pace with population growth. Since the population age structure will not change during the seventies, increases in food requirements will be proportional to increase in population. Thus, to maintain the nutritional standards of the beginning of the decade, food production must be increased by 40 per cent in the coming 10 years.

Few would deny that the Filipino diet needs improving. Large numbers of Filipinos are living amid severe stresses of malnutrition. Dr. Intengan estimated that "to meet the nutritional targets for 1970, consumption of cereals has to be increased by 10 to 15 per cent, beans and fats by 100 per cent, fruits and leafy vegetables by 300 to 400 per cent, meat, fish and poultry by 10 to 14 per cent and milk by 15 per cent. The need for an even higher consumption of some protective foods is indicated in 1980 in anticipation of the improved stature and physique of Pilipinos." Dr. Intengan seriously doubts the attainment of self-sufficiency in food during the next decade" unless immediate steps are taken to produce increased amounts of food or reduce the population growth."

The decade of the seventies presents two major types of problems in the production of rice as Dr. Mears foresees: "first is the problem of the ever increasing population which will probably demand about 40 million cavans of palay more by 1980 than in 1970. To produce this additional volume by high yielding seed that adds 50 cavans to the production of each hectare will require that over 800,000 hectares of irrigated land be added to that under rice cultivation in 1970. This emphasizes the importance of maintaining the irrigation strategy for some time to come."

"At the same time," continues Dr. Mears, "there appears strong likelihood that there could be extended periods of surplus. This is a question that the Philippines has not had to face for 100 years, and the country is not prepared for all that it involves." While there is evidence that the country is about to make a breaktrhough toward self-sufficiency in rice production, Dr. Mears feels it is yet too early to set any precise timetable. It is necessary to have "continued effective price policy support by the government, strategic assistance with infrastructure and help in other specific areas where the private sector lags."

Most policy planners and commentators on the problems of the Philippine economy have continued to assume that agriculture will have to provide the primary source of economic growth as well as labor utlization over the next decade and a half. "Unfortunately," as Dr. McHale points out "there seems to be no basis for hope in this area. Like Mr. Perez and Dr. Gupta, he does not "forsee Philippine agriculture absorbing any significant additions to the existing labor force within agriculture. Contrary wise, increased productivity is most likely to involve less rather than more men on the land."

The problem of education in the seventies, as stated by Dr. Corpuz will be providing quality education for the nearly 14 million persons of school age in 1970 and 20 million by 1980. Dr. Corpuz estimates that the elementary school system alone will have to provide an aggregate of 88.1 million pupil-years of schooling for the seventies. The fundamental need of the Philippine educational system now and in the next few years is for basic policies.

The fact that the population problem is an increasingly serious one especially as it relates to the cities, is outlined in the paper on urbanization in the seventies by Mr. Hendershot. The urban problems presented fall into two general kinds: (1) problems arising from a simple increase in the number of people who must be served; and (2) problems resulting from a changed relationship between people and environment, people and technology, or people and other people. Problems of the first kind is exemplified by the collection of refuse, the easiest to recognize and the easiest for which to plan. They can be solved for the most part by expanding the scale of operations without making any basic changes in organization. However, changes of the second kind, like the rising crime rate, require not only additional resources, but new and better forms of organization. There is a tendency to see all problems as requiring nothing more than additional resources for creating a new program is always more difficult than expanding old ones. Nevertheless, Hendershot emphasized "That because of the interdependence of ecological components, population growth causes changes which cannot be met simply with more of the same. New ideas, programs, and organization forms are also required."

In the last few decades, the progress achieved on the health front is undeniable. Despite this progress, however, numerous problems persist. These will undoubtedly be compounded by the expected increase of the population in the seventies. In his study on the health and medical

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services required in the coming decade, Dr. Melchor Jacinto outlines such environmental problems as deficiencies in the water supply, food hygiene, refuse disposal, and air and water pollution that will continue to harass the population. Moreover, infant mortality remains high although average life expectancy at birth has been increasing.

What is to be done to control population growth? There are only two ways to dampen a country's rate of population growth. One is to increase the death rate and the other is to lower the birth rate. No nations or cultures in the world are prepared to accept an increase in mortality as a way of controlling population growth. Consequently, only the control of fertility remains as a way to check population increase.

If the birth rate in the Philippines declines significantly, it will be the result of the adoption by large numbers of couples of some means of preventing pregnancy. The surveys conducted by the University of the Philippines, Population Institute indicate that in the Philippines, women say they want moderate sized families, often say that they do not want to have more children than they already have, approve in general of the idea of family planning and are interested in learning more. The experience of the clinics operated by the Manila Health Department and the Philippine General Hospital indicates that even without an "advertising" campaign, many thousands of Filipino women will avail themselves of family planning services when they are easily accessible. Furthermore, the women overwhelmingly select contraceptive methods which are highly effective when properly used. But the hints of a possible future decline in fertility given by these data "can give little comfort to those who must solve the problems of rapidly growing population in the seventies."

APPENDIX J

THE POPULATION EXPLOSION

By ROBERT S. MCNAMARA

There is a problem that has arisen out of the recent past; that already plagues man in the present; and that will diminish, if not destroy, much of his future - should he fail to face up to it, and solve it.

It is, by half a dozen criteria, the most delicate and difficult issue of our era - perhaps of any era in history. It is overlaid with emotions. It is controversial. It is subtle. Above all, it is immeasurablly complex.

It is the tangled problem of excessive population growth.

It is an issue, finally, that is so hypersensitive - giving rise to such diverse opinion - that there is an understandable tendency simply to avoid argument, turn one's attention to less complicated matters, and hope that the problem will somehow disappear.

But the problem will not disappear.

What may disappear is the opportunity to find a solution that is rational and humane.

If we wait too long, that option will be overtaken by events.

We cannot afford that. For if there is anything certain about the population explosion, it is that if it is not dealt with reasonably, it will in fact explode; explode in suffering, explode in violence, explode in inhumanity.

My responsibilities as President of the World Bank compel me to be candid about the blunt facts affecting the prospects for global development.

The bluntest fact of all is that the need for development is desperate.

Onethird of mankind today live in an environment of relative abundance.

But two-thirds of mankind - more than 2,000 million individuals - remain entrapped in a cruel web of circumstances severely limiting their right to the necessities of life. They have not yet been able to achieve the transition to self-sustaining economic grwoth. They are caught in in the grip of hunger and malnutrition; high illiteracy; inadequate education; shrinking opportunity; and corrosive poverty.

The gap between the rich and poor nations is no longer merely a gap. It is a chasm. On one side are nations of the West that enjoy per capital incomes in the US$3,000 range. On the other are nations in Asia and Africa that struggle to survive on per capital incomes of less than US$100.

What is important to understand is that this is not a state situation. The misery of the underdeveloped world is today a dynamic misery, continuously broadened and deepened by a population growth that is totally unprecedented in history.

This is why the problem of population is an inseparable part of the larger, overall problem of development.

To put it simply: The greatest single obstacle to the economic and social advancement of the majority of the peoples in the underdeveloped world is rampant population growth.

Having said that, let me make one point unmistakably clear: The solution of the population problem is in no way a substitute for the more traditional forms of developmental assistance ,aid for economic infrastructure, aid for agriculture and for industrialization, aid for education and aid for technological advance.

The underdeveloped world needs investment capital for a whole gamut of productive projects. But nothing would be more unwise than to allow these projects to fall because they are finally overwhelmed by a tidal wave of population.

Surely, then, it is appropriate that we should attempt to unravel the complexities that so confuse this critical issue. The average population growth of the world at large is 2 percent. Many underdeveloped countries are burdened with a rate of 3.5 percent or more. A population growing at 1 percent doubles itself in 70 years; at 2 percent it doubles in 35 years; at 3.5 percent it doubles in only 20 years. If we are to reject mass starvation and political chaos as solutions to this explosive situation, then there are clearly only three conceivable ways in which a nation can deliberately plan to diminish its rate of population growth: to increase the death rate; to step up the migration rate; or to reduce the birth rate.

No one is in favor of the first choice. The second choice is wholly inadequate. Increased migration, on any scale significant enough to be decisive, is simply not practical. That leaves the third choice - a humane and rational reduction of the birthrate.

Is it feasible? It is.

Is it simple? It is not.

Is it necessary? Without question.

It is necessary because the consequences of continuing the present population growth rates are unacceptable.

Let us examine those consequences.

The consequences of rapid population growth - piled on top of an already oppressive poverty - must be grasped in all their concrete, painful reality.

The first consequence can be seen in the gaunt faces of hungry men.

One half of humanity is hungering at this very moment. There is less food per person on the planet today than there was 30 years ago in the worldwide depression. Thus hunger and malnutrition forge a chain of conditions that only spiral the total human performance dismally downward. Alertness, vitality, energy, the ability to learn, the desire to succeed, the will to exert an effort - all these inestimable human qualities drain away.

How many children today are caught up in this crisis? How many of them subsist at levels of hunger and malnutrition that risk their being unreversibly mentally retarded for the rest of their lives? Some 300 million. But the population explosion's corrosive effects on the quality of life do not end with hunger. They range through the whole spectrum of human deprivation.

Current birthrates throughout the emerging world are seriously crippling development efforts. Why? The reason is that these governments must divert an inordinately high proportion of their limited national savings away from productive investment simply in order to maintain the current low level of existence.

Each additional child brought into the world must not only be fed, but clothed, housed, medically cared for, and supported by at least minimal educational services. All of this requires new capital - new capital that cannot be invested in other desperately needed sectors of the economy.

If the number of children in the total population - as a result of high birthrates - is very large, a nation is under the compelling necessity to expand ever-greater resources simply to keep its people from slipping beneath minimum subsistence levels. A treadmil economy tends to emerge in which the total national effort will exhaust itself in running faster and faster merely to stand still.

More and more classrooms must be built, more and more teachers must be provided, more and more vocational training facilities must be established. But despite all this effort both the quantity and quality of education will inevitably decline. It simply cannot keep pace with the mounting waves of children. Thus, one of the prime movers of human development - education - is sacrificed.

Further, as ill-educated, perhaps wholly illiterate, children reach the age when they ought to become producers in the economy, they are engulfed by the hopelessness of underemployment. In many of the world's shanty towns, 60 percent of the adolescents are out of work.

This, then is the cruel and self-perpetuating dilemma that governments face in underdeveloped countries over-burdened for long periods with high birthrates.

Their plans for progress evaporate into massive efforts merely to maintain the status quo.

But what is true at the national level is repeated with even greater frequency on the personal family level. Millions of individual families wish to avoid unwanted pregnancies.

And when these families cannot find legal and compassionate assistance in this matter, they often turn to desperate and illegal measures.

Statistics suggest that abortion is one of the world's most commonly chosen methods to limit fertility - despite the fact that in most societies it is ethically offensive, illegal, expensive and medically hazardous.

The tragic truth is that illegal abortion is endemic in many parts of the world. And it is particularly prevalent in those areas where there is no adequate, organized family planning assistance.

The conclusion is clear: Where the public authorities will not assist parents to avoid unwanted births, the parents will often take matters into their own hands - at whatever cost to conscience or health.

Today, the average birthrate for developing countries is 40 to 45 per 1,000 of population. To get this rate down to the 17 to 20 per 1,000 that is common in contemporary Europe would require a reduction in the developing world of some 50 million births a year. To suppose that economic advancement by itself - without the assistance of well-organized family planning - could accomplish this in any feasible time-frame of the future is wholly naive.

Indeed, even with family planning, no such promising results are feasible in less than two or three decades. What is feasible - indeed what is imperative - is the establishment of family planning on a scale that will starve off total economic and political disintegration in those countries where social progress is being seriously limited by the glut of unwanted birth.

No government can, of course, ultimately succeed in convincing its own population to undertake family planning if parents themselves do not really want it.

But the almost universal fact is that parents do want it. They often want it far more than their own political leaders comprehend.

People - particularly poor, ill-educated people - may not understand the techniques of family planning. Most of them have only the most tenuous understanding of human biology. Often their limited comprehension is tragically confused by gross misinformation.

But the motion that family planning programs are sinister, coercive plots to force poor people into something they do not want, is absurd.

The pervasive prevalence of voluntary illegal abortion should be enough to dispel that fiction.

The poor do not always know how to limit their families in less drastic and dangerous ways, but there is overwhelming evidence that they would like to know how. Family planning is not designed to destroy families. It is designed to save them.

All of us accept the principle that in a free society, the parents themselves must ultimately decide the size of their own family. We would regard it as an intolerable invasion of the family's right for the state to use coercive measures to impelement population policy. We can preserve that right best by assisting families to understand how they can make that decision for themselves.

The fact is that millions of children are born without their parents desiring that it happens. Hence, a free, rational choice for an additional child is not made in these cases. If we are to keep the right of decision in the hands of the family - where it clearly belongs - then we must give the family the knowledge and assistance it requires to exercise that right.

Programs are beginning to show progress in limited areas. But no reduction in birht rates has yet been achieved anywhere in the underdeveloped areas which can significantly affect overall world population totals.

This means that family planning is going to have to be undertaken on a humane but massive scale. Other massive efforts in our century - for example, in the field of public health - have been mounted and have been successful.

Bot threats can - and will - have catastrophic consequences unless they are dealt with rapidly and rationally.

The threat of violence is intertwined with the threat of undue population growth. It is clear that population pressures in the underdeveloped socieiteis can lead to economic tensions and political turbulence, stresses in the body politic which can bring on conflicts among nations.

Such violence must not be allowed to happen.

We all share the responsibility of taking those actions necessary to assure that it will not happen.

There is no point in despair. There is every point simply in getting busy with the job.

We can, and we must, act.

What we must comprehend is this: The population problem will be solved one way or the other. Our only fundamental option is whether it is to be solved rationally and humanely - or irrationally and inhumanely. Are we to solve it by famine? Are we to solve it by riot, by insurrection, by the violence that desperately starving men can be driven to? Are we to solve it by wars of expansion and agression? Or are we to solve it rationally, humanely - in accord with man's dignity?

There is so little time left to make the decision. To make no decision would be to make the worst decision of all. To ignore this problem is only to make certain that nature will take catastrophic revenge on our indecisiveness.

Providence has placed all of us on that fulcrum-point in history where a rational, responsible, moral solution to the population problem must be found.

If we shirk that responsibility, we will have committed the crime.

But it will be those who come after us who will pay the undeserved... and the unspeakable. ... penalties.

VOCABULARY WORDS

Pilipino	English	Maguindanao	Maranao	Samal	Tausog	Yakan
Karaniwan Promedyo	Average	Zdakil	Matungka	Harang-Harang	Sarang-Sarang	Sarang-sarag
Kontraseptib	Contraceptive	Gamot sa di Kambata	Bolong sa di Kapumbawata	Pa malahang leh nganak	Paghundung sin Paganak	Pagtambal gey nganak
Pagpaplano ng pamilya	Family Planning	Etemgar kano kambabata	Sa di kaplano ako pamilya	Pagganta ma Pamilya	Pagpikilan	Pagganta me pamilya
Balak	Plan	Etungan	Entangon	Palano	Pandugaan	pagplano, sakap, magsakap, magpikilan
Patakaran	Policy	Okit-okit	okit	Pakaradjaan	Pakaradjaan	pagsara
Saloobin	Attitude	Marigiginawa or kangiginawa	paranay	Kaul pul	aturan	hatulan
Pamamaraan	Method	Okit-okit	Okit	Pakaradjaan	Pakaradjaan	Pakaradjaan
Banal na Batas Islam	Holy Law of Islam	Shari-a	Shari-a	Shari-a	Shari-a	Shara Islam
Paghugot	Coitus interruptus or withdrawal			Kaulpiil empen mahatahinang anak	Pagbugit sin manni	pinaluwas
Kasabihan ni Propeta Muhammad	Hadith or saying practice/action of Prop. Mohammad	Katalu ni nabi Propeta Muhammad	so Madulol man ko Katurao nabi	Pamong nabi Mohammad	Sabdah sin nabi Mohammad SWA	sara nabi Mohammad

Filipino	English	Maguindanao	Maranao	Samal	Tausog	Yakan
Tiwala	Trust	Amang kasarig	Sarig	Ngangdal	Magandul	U-ugandel, n-sandel
Isterilisasyon	Sterilization			Maha Manjari	Dih Jimatu	gai manjari